

FARMERS' FORUM

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Issues and Ideas for Indian Agriculture

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Food Inflation: Northwards Bound

It hurts everyone every single day; almost every hour. It would be good to be able to say that it is not visible to the eye but one cannot, any longer. That is because something as essential as 'daal' has disappeared from the poor person's diet of 'daal roti'. Even the middle-class Indian is finding it hard to afford it. Understanding food inflation is no less difficult than controlling it. On the one hand, food prices continue to rise and, on the other, the farmer's share of price that the consumer pays keeps falling.

In the first term of the UPA government, the left parties were blamed for blocking reforms and the continuation of excessive regulations that prevented policy measures from being implemented to protect the aam aadmi. In the second term, there were no restrictive ideologies to hold back firm government action. Even so, the government has been unable to control prices. The average food inflation in the last four years has been raging from nine per cent to 17 per cent.

Economists glibly attribute food inflation to the strong growth of the Indian economy using arguments that are far from convincing. While high growth could be a restricting factor in efforts to control price rise; it can never be an untamable factor. China, which has grown at a higher rate of growth for decades, not just years, has had no problem with food inflation for most of the years. Growth is good but if growth is responsible for the suffering of the masses, the same economists who expect to be lauded for accomplishing growth should rather hang their heads in shame for failing on the inflation front.

Whither inclusive growth

It is necessary to examine who gets affected by a price rise especially under a regime whose mantra is "inclusive growth. The farmers comprise the largest section of Indian society and are, therefore, the most affected lot. The farmers are enjoined, besides, to produce food for the country even when the bulk of them are, invariably, without the wherewithal to have two square meals a day. This farming population also includes the landless agriculture labour working in the fields,



CHINA, WHICH HAS GROWN AT A HIGHER RATE OF GROWTH FOR DECADES, NOT JUST YEARS, HAS HAD NO PROBLEM WITH FOOD INFLATION FOR MOST OF THE YEARS.

FRUIT AND VEGETABLES ARE PERISHABLE AND BASICALLY RESPONSIBLE FOR THE RECENT HIKE IN FOOD INFLATION.

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who not only face a problem with food but also fuel. Wood or organic matter for cooking, which was free for thousands of years, has been commoditised now and has a value because of the demand generated by the alternative fuel industry. This is a lesser understood problem and demands greater scrutiny in terms of its implications for landless rural people given government policies on alternative fuel. Such social impact analytical studies are not a favourite subject of economists and planners.

Why food inflation

Food inflation happens because of a multiplicity of factors, including – and not limited to – an increase in input prices, misdirected and uncoordinated policies, inadequate allocation of funds for agriculture research, collapse of extension services – in other words transferring this research from the laboratory to the land – marketing laws, existing monopolies, limited choices and access to the farmers and consumers alike. These issues can only be resolved over a long term and with committed action.

In the short term, it boils down to sheer bad governance of the various governments, at the Centre or at the state levels over several years. Fruit and vegetables, for instance, are perishable and basically responsible for the recent hike in food inflation. The difference in the price of fruit and vegetables at which the farmers sells it and the price at which the consumer buys it, is possibly the highest in the world. Policy intervention can reduce this gap and prices can actually fall substantially. Changing tack of the Agricultural Produce and Marketing Committee Act will also help.

Food inflation has been unexpectedly high in recent weeks, driven by surging prices of vegetables, fruits, dairy, oilseeds and spices. It was unexpected because good rainfall in 2010 was expected to bring down prices. It did: for cereals (wheat, rice) and pulses, which together provide most of the energy and protein intake of households in India, especially of the poor... the surging prices of other foods caused the overall food inflation to rise. Food inflation is especially critical in India given its high rates of malnutrition and household food spending accounting for in excess of 40 per cent of total household expenditure, as opposed to some seven per cent to eight per cent in richer countries.

– Excerpted from the Economic Survey 2010-11

Monthly break-up of WPI food inflation (per cent)

Wt% Period	All Commodities 100		(A) Food Articles 14.34		(B) Food Products 9.97		(A+B) Food Combined 24.31	
	2009-10	2010-11	2009-10	2010-11	2009-10	2010-11	2009-10	2010-11
Apr	0.89	11.00	8.69	20.49	8.86	9.09	8.76	16.09
May	1.21	10.60	8.91	21.37	10.12	7.09	9.37	15.85
Jun	-0.71	10.28	11.28	20.97	9.05	6.13	10.42	16.30
Jul	-0.62	10.02	12.74	18.48	8.46	7.34	11.10	14.31
Aug	0.31	8.82	14.36	14.96	10.73	4.58	12.97	11.06
Sep	1.09	8.93	13.92	16.29	12.08	3.62	13.21	11.49
Oct	1.48	9.12	12.47	14.64	12.97	3.75	12.66	10.56
Nov	4.50	7.48P	16.73	9.41P	17.94	0.57P	17.17	6.11P
Dec	6.92	8.43P	20.76	13.55P	19.30	0.35P	20.21	8.59P
Jan	8.53		20.19		19.16		19.80	
Feb	9.68		21.85		17.68		20.22	
Mar	10.23		20.65		15.11		18.50	

Source: The Office of the Economic Advisor, Ministry of Commerce and Industry

Note: P—Provisional

Main drivers of food inflation

Items	Weight%	WPI		y-o-y Inflation		y-o-y * Financial	Financial	year WC
		Dec. 2009	Mar. 2010	Dec. 2010	Dec. 2010	Dec. 2010	year inflation Apr. Dec. 2010	
All Commodities	100.00	132.9	135.8	144.1	8.43	100.00	6.11	100.00
Primary Articles	20.12	162.2	165.9	188.9	16.46	47.96	13.86	55.75
Primary Food Articles	14.34	164.6	163.6	186.9	13.55	28.55	14.24	40.25
Rice	1.79	164.5	163.3	166.4	1.16	0.30	1.90	0.67
Wheat	1.12	180.8	172.8	171.6	-5.09	-0.92	-0.69	-0.16
Pulses	0.72	212.1	198.9	189.0	-10.89	-1.48	-4.98	-0.85
Vegetables	1.74	180.0	132.0	224.9	24.94	6.96	70.38	19.43
Potatoes	0.20	240.1	105.4	176.3	-26.57	-1.15	67.27	1.72
Onions	0.18	268.2	171.3	391.1	45.82	1.95	128.31	4.71
Fruits	2.11	136.0	145.6	163.8	20.44	5.23	12.50	4.62
Milk	3.24	151.0	167.2	178.5	18.21	7.95	6.76	4.41
Eggs, Meat, & Fish	2.41	164.3	172.1	195.9	19.23	6.81	13.83	6.92
Condiments & Spices	0.57	202.7	204.9	270.6	33.50	3.45	32.06	4.50
Tea	0.11	165.8	129.1	156.7	-5.49	-0.09	21.38	0.37
Manufactured Food	9.97	142.2	141.7	142.7	0.35	0.45	0.71	1.20
Sugar	1.74	185.7	183.6	167.3	-9.91	-2.85	-8.88	-3.41
Vanaspati	0.71	107.3	108.5	119.6	11.46	0.79	10.23	0.96
Oil, Groundnut	0.30	133.0	131.5	147.8	11.13	0.40	12.40	0.60
Oil, Sunflower	0.17	115.8	112.5	128.4	10.88	0.20	14.13	0.33
Rice Bran Extraction	0.09	210.3	210.4	231.2	9.94	0.17	9.89	0.23
Tea & Coffee Process	0.71	148.6	140.7	160.4	7.94	0.75	14.00	1.69
Malt Liquor	0.15	150.9	150.4	167.1	1.74	0.22	11.10	0.31

Source: The Office of the Economic Advisor, Ministry of Commerce and Industry

Note: WC - Weighted Contribution

Compounding the problems

Simple solutions elude policymakers, possibly due to coordination problems because agriculture is a state subject. Preference, incentives and subsidies for a limited number of crops, trying to feed the nation by transferring grain from one area to another and many more such factors contribute to the growing complexity of the problem. The loss of biodiversity of local, edible produce due to monoculture being propagated by the government is also prompting the population to eat food it never ate before. Indeed, the government has changed the food habits of the entire nation due to haphazard planning and with no economic or health advantage and certainly at great cost to the country. There is, besides, the question of denying access to new technology that will reduce India's competitiveness and preparedness to tackle food inflation and spike in prices. It will leave the country open to manipulation by international institutions and nations.

What is even more of a problem than food inflation is the spike in prices of commodities: take the recent case of onion prices. Developing market intelligence on commodities and its judicious use will also help stop price spikes and help control food inflation. The prices of onions shot up from Rs 20 to Rs.70 and dropped to Rs 15 all in a matter of three months. All this while the farmer never got more than Rs 15. He is getting Rs 5 now. As expected, the government responded by a ban on export and import of onions only to revert its position again; all in three months.

Misplaced priorities

The government is always trying to control prices of food and to subsidise the urban consumers at the cost of the farmers. It appears that the only tool available to control inflation and price spikes is regulating international trade. Take the case of the rice



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export ban two years ago. The price of rice was twice as high in the international market as in India (farmers were forced to sell for less). Importing sugar to subdue prices (farmers were denied better sugarcane prices) distorted the international market, thereby forcing a rise in prices for the whole world. Currently, export of wheat is banned though

- the price in the international market is 20 per cent higher than the Indian minimum support price
- India does not have space to store wheat
- Indian stocks are in excess of double the buffer norms.

It is said that the government spends more on storage than on agriculture and irrigation combined!

Marketing reforms

Will allowing trade in futures market lead to inflation? Facts may prove otherwise: inflation and spike are far more in those commodities where there are no futures trading. Indeed, a futures market may also allow better price realisation for the farmers. Allowing growth of retail chains will help farmers realize a better price, if for no other reason than by being an alternate to the stranglehold of the sabzi mandi trader and the street vendor nexus.

It is important to come to terms with the government's conceptual understanding of food inflation for it is this that determines the strategies that it zeros in on, to address the problem. Systematic inattention to the ground realities is a major problem leading to myopic solutions that end up aggravating the problem. Circumstances are not necessarily leading to food inflation; the choices that we make are responsible for the problems, including the choice of the politician we elect.

As the farmer becomes more irrelevant in the political sphere and the urban electorate gains prominence, it is increasingly clear that the government is taking sides to retain power. This misplaced support or aid for one side also adds to food inflation rather than reduce it. Who needs such growth? The established regime needs to wake up before the hitherto compliant farmer chooses to act in a manner that will overrun the self-designated reformers. Just as the country debates that right to food bill; so must it debate the farmer's right to a remunerative price. After all, the rights of one segment cannot be at the cost of the life of another. ●

Ajay Vir Jakhar

Ajay Vir Jakhar
Editor





COVER STORY

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Letters to the Editor

Job well done

Sir, I read with keen interest your issue: "Agriculture: left in the lurch", (Farmers' Forum, March-April 2011). I found the contents uniformly brilliant, highly informative and readable. I hope you will continue to focus on different aspects of Indian agriculture and deal with them exhaustively. I find yours to be a journal with a difference: you do take up age-old issues but you offer and explain the best possible solutions. I am sure the popularity of the journal will increase with every issue published.

T. Chandrashekaran, Madurai, (T.N.)

What do the environmentalists know?

Sir, Apropos of the article "Changing Tack: Over to a soil nutrient regime" (Farmer's Forum, January-February 2011), by T. Nanda Kumar, I found it to be a very balanced article with practical policies that are right for many of India's soil fertility and crop productivity and profitability problems. However, I found the other articles in the issue to have a very strong environmental focus. They have been written by environmentalists who have bandied fabricated numbers that make little sense. I wonder, why they are not asked to produce evidence in support of whatever they write.

These numbers, analyses and recommendations are neither correct, nor can they do any good to India that must feed its people today and tomorrow, if it wants to remain a sovereign



Making a difference

Sir, I agree with your arguments that Union Budget 2011-12 has not been a good one for the farmer: "Agriculture: left in the lurch", (Farmers' Forum, March-April 2011). The question then is why are farmers not protesting? Why this indifference? This is the answer that a journal like yours needs to provide. Why are farmers not interested in their own welfare? What can Farmers' Forum do to make the difference?

Hemant Shah, Surat (Gujarat)

power. I am disappointed that a magazine that claims to be concerned about farmers (unless I am wrong here) and has such a distinguished Editorial Board would publish such articles.

Anonymous

Broken to bits

Your story, "Fragmented Farms, Victimized Farmer" (Farmers' Forum, March-April 2011) focusing on Satyanarayan Goud was fascinating and touching because it represents the same condition prevailing all over India: one family divided into many and thus their share of the land. The question is what and in what quantity can one grow on such small fields? Such fragmentation of land makes their life worse.

Chandresh Kumar, Dehradun, (Uttarakhand)

The hidden agenda

Your comprehensive article on the Union Budget and agriculture, "Agriculture: left in the lurch", (Farmers' Forum, March-April 2011) is an eye opener. Indeed, you have truly explained the actual intentions of the Hon'ble Finance Minister in your editorial, "Hiatus between words and deeds" with the help of famous incident in the "Mahabharata". This budget really hides more than it reveals. Also, by comparing cotton and gold prices in the last 30 years, you focus on the condition of the farmer in this country and the attitude of our politicians and policy makers towards him.

Lalit Bhatt, Solan, (Himachal Pradesh)

India's Pick-Pocketing FOOD PRICES

There is nothing more disempowering for a society than to have food available, in front, and yet be out of its reach; not fancy food but staples. As the aspiring winner of the 21st century, India, unabashedly, has not been able to address this symbol of dispossession that haunts vast sections of its people. Food inflation has been plaguing the country's poor – and to a certain extent the government – more so because there seems to be little consensus about what happened and why. The Economic Survey 2010-11 spends a lot of space discussing it and presenting cogent reasons while others dismiss the government's reasoning as rubbish.

Prof Kamal Nayan Kabra in his article, 'Price people pay for 'dis-equalising' high



growth,' contends that inflation seen during the recent times is a special phenomenon not only because of its economic features but its political economy as well. "This stretch of inflation goes against all known and logical canons of good and sound economic policies as it was and, even now, is within the means of the government to curb it effectively". The cover story then seeks to understand the reasons for which the government tolerates and, in some ways, encourages the present round of inflation to persist, especially owing to its inner dynamics over time. It checks out points of view other than Prof Kabra's.

What does the Economic Survey conclude?

Conceding that inflation is clearly the dominant concern, the survey examines the inflationary trends. The average headline inflation in April-December 2010-11 at 9.4 per cent was the highest ever in the decadal average as was the annual average inflation based on the Wholesale Price Index, for primary food articles, fuel and power and manufacturing products. The survey says that during the last financial year, even as the rate itself was "uncomfortably high, the reversal in the direction of inflation in December is also striking. After some moderation between August and November 2010, inflation rose again in December 2010 on account of sharp increase in the prices of primary food articles and the recent spurt in global oil prices". Meanwhile, non-food manufacturing inflation remained sticky, reflecting buoyant demand conditions. However, in January

2011, headline inflation had come down to 8.23 per cent.

Global price spike

The survey said that the inflation outlook would be shaped by the food price situation and the demand-side pressures in the economy, but linked the Indian high food inflation to the global spike in food prices. "The domestic food price situation could be exacerbated by the increase in global food prices because of dependency on import of some food items like edible oils. Current growth and inflation trends warrant persistence with an anti-inflationary monetary stance," said the survey, forecasting that maintaining costs and credit availability at a supportive position for the growth momentum, "while ensuring that inflation falls back to more comfortable target levels," would be at the centrestage of policy consideration in the near term.

Inflationary pressures in the economy are also emanating in part from supply-side constraints, especially in food and other primary articles, as well as the transmission of higher global food, oil, and other commodity prices. These considerations, therefore, are complicating the issue in the near term. If external commodity negative price shocks build further, the dilemmas will become greater. Therefore, the policy challenge of maintaining the growth momentum in the economy with price stability is going to remain a key focus area for monetary policy and macroeconomic management.

— *Economic Survey 2010-11*



"This country can easily afford to export between three million tonnes (mt) and five mt of wheat for which it would otherwise have to create space for storage"

– Dr Ashok Gulati

The more than expected and obdurate inflation in the recent past, especially of food and the building up of wider inflationary expectations in the economy, even as monetary policy tools are being used proactively to manage demand and dampen inflationary pressures in the economy will determine government policy measures. However, the concurrent consolidation of fiscal deficits will ease the conduct of effective monetary policy in the near future. "The reduced fiscal deficits will permit greater availability of credit to sustain growth, while tighter monetary policy starts to transmit its impact in reducing inflationary pressures. The transmission of monetary policy, however, comes with a lag," the survey says.

The GDP allure

Prof Kamal Nayan Kabra has an entirely different take on the inflation problem. He believes that the present regime treats the rising and near double-digit growth rate of the gross domestic product to be its unique selling proposition; certainly the most significant one. "In any case, the other objectives are so intensely socio-economic and practically inconsistent with the logic and rationale of neo-liberalism (unregulated and self-regulating corporate oligopoly-dominated markets and an open economy) that it has little option but to put all its eggs in the GDP growth basket."

Prof Kabra explains that for long, mainstream economic folklore has projected GDP goal as the singular national achievement. However, accepted critiques of this view have, by and large, exploded the myth of the desirability of this goal as nothing but the most effective means to camouflage crass class and narrow economic objectives. He uses the *Economist's* assessment of the real content and message of the GDP growth: "Investors care about GDP growth. Corporate profits depend on the absolute rate of growth of the economy and companies wanting to invest abroad will favour the markets that are expanding more rapidly (March 15, 2008)." One can easily see whom the chorus of high growth saga is addressed to by the neo-liberal pundits every time they gloat over India's economic performance.

Whatever be the balanced assessment, if growth means more wealth at the disposal of the people through better incomes, how does the government reconcile the growth with the fact that the accompanying price hike has consumed all the benefits of rising incomes, where they have come and entirely depleted home budgets of those who had very little to begin with. Inflation affects the poor more than the rich. The poor spend between 50 per cent and 60 per cent of their incomes on food. At one level, one is providing a social safety net, at another level, if one is unable to protect the poor from food inflation, their real incomes will come down. This is happening increasingly along with inequalities in society. The government, as many see it, is abdicating its responsibility by blaming it on international prices.

Rising prices do not only affect the consumer but the farmer as well and all these heightened costs go into fueling the food inflation further. The farmer has to pay, amongst others, increased costs for such inputs as seeds and hired labour, some – not all – of which is covered by the minimum support prices. This brings us to the economics of minimum support prices. Naresh Minocha, in his article 'Food inflation: India's permanent challenge', says that the MSP hikes have generally been modest for wheat,

"While farmers are worried about exports not being opened, what worries them more is when the government will allow export of wheat. Will it be after the farmers have sold the wheat to the middleman and the FCI or will it permit exports now, to enable the farmer to make a profit?"

– Ajay Jakhar

rice and other cereals as compared to those for pulses and oilseeds. However, the relatively sharper rise in MSPs for pulses and oilseeds has not induced farmers to take up the production of these crops in a big way. The important thing is that "MSP announcements send price signal to both the domestic and overseas markets that regularly supply pulses and oilseeds to India. Ironically, MSP for pulses has led to India export-centric pulses farming in certain countries! The continued and heavy reliance



Indicative Projections of Macro Parameters for 2010-11 by RBI

	Annual Policy 2010-11 (April 20, 2010)	Indicative projections for growth rates (per cent)		
		First Quarter Review (July 27, 2010)	Second Quarter Review (November 2, 2010)	Third Quarter Review (Jan. 25, 2011)
GDP growth	8.0	8.5	8.5	8.5
WPI inflation	5.5**	6.0**	5.5	7.0
Money supply growth (M ₃)	17.0	17.0	17.0	17.0
*Adjusted non-food credit	20.0	20.0	20.0	20.0

Notes : * Includes investment by SCBs in bonds/debenture/shares of public sector undertakings, private corporate sector, and CP. ** Old series. – Economic Survey

on imported pulses and oilseeds is thus the second primary factor that contributes to food inflation.”

There is yet another aspect of food inflation that needs to be addressed. In his article, ‘Food and inflation: time to expose the non-linearities’, Dr Dhrubajyoti Ghosh explains why it is important to understand the collateral factors leading to food inflation. He gives the example of Prajitha, a two and a half year old girl, a suspected victim of endosulfan, dying in Kerala. “The absence of timely medical care at the Kerala government run hospital was the immediate cause: the child was refused admission on the plea that the paediatrician was on leave. She reportedly died at a private hospital later. However, the cost of Prajitha’s death is not included in the price of food that is used to calculate inflation but the locals have a fair understanding of the actual price that they pay for the food that they consume.”

Adding a new dimension to the food inflation question, Dr Ghosh says that there is a fundamental gap in the economic theory of calculating inflation based on food prices. “What has been assumed to be a linear function is really a greatly non-linear one. It is well-known that market-based calculations in economics do not provide the consumers with proper information.” The social costs like the death of Prajitha, howsoever real they might be, are euphemistically termed as ‘externalities’.

“As bookkeepers, the managers of the Indian economy calculate the rate of inflation based on food prices with knowledge that is as insufficient as that of the farmer carrying pesticide in his small can, which he euphemistically calls ‘oushadh’ (medicine). Indeed, train-loads of cancer patients from the agricultural fields of Punjab do not bring any discomfiture to Indian planners because no formal research report identifies the cause. Worse, it is not just pesticide that is consumed through fresh vegetables and fruit. In most cases, they have artificial additives that may well be lethal for the consumer, who is kept in the dark.”

Finally, the cover story has a detailed conversation with Dr Ashok Gulati, the chairman of the Commission for Agricultural Costs and Prices, Ministry of Agriculture. The interview keeps food inflation and farmer interests at its focal point while exploring the economics and politics of Indian farm sector; and the changes that technology and global markets are ushering in; public-private partnerships in food procurement and storage; exports of wheat; and the use of the UID programme to effect cash transfers to farmers, where necessary.

“The objective is to protect the poor and everybody is in agreement on that front. I would like a system to be 70 per cent driven by conditional cash transfers save in inaccessible areas where technology cannot work and other places where there is targeted delivery of the goods rather than other way round. This will give people the freedom to choose where they want to buy from and not go to fair price shops only. They could go to Kishore Biyani’s shop if they wish to. That is the idea: to give consumers the system they want,” says Dr Gulati. ●



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The background of the cover is a photograph of agricultural products. In the upper left, a sack is filled with white, granular flour. To its right, another sack is filled with golden-brown wheat grains. In the foreground, several wheat stalks with ripe, golden heads are scattered across a dark, textured surface. The lighting is warm, highlighting the textures of the grain and the coarse fabric of the sacks.

**COVER
STORY**

FOOD INFLATION

**Price People Pay for
'dis-equalising' High Growth**

Kamal Nayan Kabra



Ever since the market processes, under the command of increasingly concentrated Indian and foreign capital, have been given a free run of the Indian economy, its multifaceted endemic volatility and the exclusionary consequences have become both pronounced and a one-way street that goes north. Not only are the growth rates at the aggregate and disaggregated levels randomly fluctuating but prices too, in practically all the markets, are fluctuating with a general tendency to move up. What makes the trend perverse is the specially marked tendency, visible for quite some time now, of the food prices to, by and large, overshoot the general price level, which itself is fast moving up.

Vicious price rise

It is well known that in India endemic hunger – afflicting the masses and steadily weakening the socio-economic position of the majority of the farming population – is a critical social issue. As a result, the crisis caused by ravaging food inflation has acquired a markedly vicious character. This seems to be owing to the failure of the government to adopt measures that are consistent with its declared policies and for which physical, financial and administrative

wherewithal are available. Moreover, the expertise available within the government openly declared in the Economic Survey last year that non-use of security stocks maintained by the government is as good as not maintaining safety stocks and goes against the logic of stabilisation policies.

What this article maintains is that inflation seen during recent times is a special phenomenon not only owing to its economic features but to its political economy as well. This stretch of inflation goes against every known and logical canon of good and sound economic policies. Even now, it is within the means of the government to curb it effectively. Hence the reasons why the government tolerates and, in some ways, encourages the present round of inflation, especially owing to its inner dynamics over time, are worth exploring.

Narrow economic objective

The present regime treats the rising and near double-digit growth rate of the gross domestic product (GDP) to be its unique selling proposition; certainly the most significant one. In any case, the other objectives are so intensely socio-economic and practically inconsistent with the logic and rationale of neo-liberalism (unregulated and self-

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regulating corporate oligopoly-dominated markets and an open economy) that it has little option but to put all its eggs in the GDP growth basket. For long, mainstream economic folklore has projected this goal as the singular national achievement. However, accepted critiques of this view have, by and large, exploded the myth of the desirability of this goal as nothing but the most effective means to camouflage crass class and narrow economic objectives. This is how the *Economist* sums up the real content and message of the GDP growth: “Investors care about GDP growth. Corporate profits depend on the absolute rate of growth of the economy and companies wanting to invest abroad will favour the markets that are expanding more rapidly” (March 15, 2008). One can easily see who the chorus of high growth saga is addressed to by neo-liberal pundits every time they gloat over India’s economic performance.

Consider how one can hold the government responsible for forcing the country to live with this kind of inflation. The manner in which the time-tested and most effective policy instrument of price stabilisation through management of stocks of food grains was used to add fuel to inflationary fires comes out vividly in the government’s Economic Survey 2010-11. An extensive quote dispels all doubts on this score.

Discussing the procurement policy and buffer stock operations it reads: “However, a study of our food stocks shows that we have continued to hold these at elevated levels in good years and bad. Likewise, procurement has taken place from year to year without the cyclical features that one would expect in an effective price stabilization system. Thus, in 2006-07, the total procurement of wheat, rice and coarse grains was 34.3 million tonnes, in 2007-08, 40.1 million tonnes, in 2008-09, 57.7 million tonnes and in 2009-10, 57.2 million tonnes.”

Since the last fiscal year was one of high foodgrains price inflation, one would have expected lower than usual procurement and larger offloading of stored food grains. However, neither of these happened. “Trying to ensure that the procured food is not released at a price, which inflicts too large a

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loss on government, we often have a price that is so high that there were no buyers. Not releasing food grains defeats the purpose of bringing down market prices.”

The real game

Thus, the procurement, off-loading and pricing policies of foodgrains (thanks to the obsession with so-called fiscal prudence for leaving ample supply of household sector savings for the corporate sectors and other big capital for accelerating growth) were all used in ways contrary to the objective of bringing down inflation. Obviously, some larger game was and is still being played. It seems that inflation was used as a major source of profit inflation (after all varying rates of inflation were, by and large, generalised to the entire economy and tended to mutually reinforce each other) with its positive effect on the organised sector's capital accumulation, with quick and handsome gains on the stock markets, commodity futures, real estate and financing of kickbacks for oiling the cronyist

political-administrative machinery for winning lucrative favours from the state.

As a result, as has been pointed out by a recent study: “Among the major economies of the world, India currently has the highest inflation rate. After a gap of 16 months, the country is now experiencing double-digit inflation in terms of wholesale prices. Towards the end of 2009, food inflation was running over 20 per cent level and has continued to remain over 16 per cent since then.” (V. Upadhyay, “inflation and Food Security” in *Two Decades of Neo-liberalism: Alternative Economic Survey*, December 2010, p139). This kind of price behaviour is not consistent with the macro-economic balance sought by the neo-liberal policy regime and is also contrary to the Indian State's declared socio-economic objective of inclusive growth. The growing concentration of growth in the corporate and other segments of the organised sector, along with incessant and rapid increase in the prices confronting the common citizen, combined with either shrinking or stagnant income-earning opportunities, located mostly in the

informal, make-do activities segments, can add up to about the worst scenario for the ordinary Indian.

What makes the inflationary spiral in the context of a highly dis-equalising growth acutely hurtful for the common citizenry are the heights and persistence of the food inflation. This is understandable because the bottom quintile of Indians has to spend a little over two-thirds of its total family expenditure on food. The consumer price index (CPI) for agricultural labourers with 1986-87 as base stood at 305 for the general price level and 303 for the food group and for rural labourers; the comparable numbers were 307 and 303 respectively, in 2000-01. For 2009-10, these indices had seen a quantum jump to 513 and 522 for the former group and 513 and 523 for the latter group of labourers.

Hitting below the poverty line

Recent price level information shows that for the agricultural labourers group the general consumer price level for November 2010 stood at 570 and for the food group it climbed up to 578. The comparable numbers for the rural labourers were 569 and 579 for the agricultural year. It is clear that the real purchasing power of the uncertain and un-indexed wages obtained by these labourers has shrunk considerably. In December 2010, the real value of the rupee earned by the agricultural labourer dwindled to just 23 paise, with immensely dreadful consequences on the minimum conditions for a human existence. These are the groups of people who are the most vulnerable and, in most respects, the excluded sections and, in terms of the findings of all the major large all-India studies, belong overwhelmingly to the below poverty line (BPL) people.

A great deal of empty concern is routinely expressed at these price trends even as the upward march of the food prices continues unabated. It seems that the official Indian view generally proceeds on the assumption of more or less the

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irreversibility of the prices after they scale a particular height. It is surely in keeping with the growth fundamentalism (treating the entire bundle of goods and services currently under production as one single-desirable entity without any consideration of its composition) that is essentially a kind of techno-economic cover for their pro-big capital value system and commitment. Thus, but for the electoral compulsion as also the overall demand compression inherent in rapidly increasing prices after a point, the neo-liberal thinking would continue using rising prices for inflating profits and thus contribute to their basic socio-economic agenda of growth acceleration.

The rentier's world

As far as post-1990 India goes, short periods of relative quiet on the inflation front are just some commas (minor interruptions to allow for some political breathing space and market adjustment) in the uninterrupted basic process of primitive accumulation by arranging transfer of income from the toiling masses to the rentier, asocial powerful classes (legalized collection of market-determined tax by the business classes by means of the unregulated marketised pricing processes). Little wonder, Ronald Reagan, one of the most outspoken advocate of free markets, described inflation to be "as violent as a mugger, as frightening as an armed robber and as deadly as a hit man." (*The Economist*, May 24, 2008).

Complex inflation reporting

The loot of the common person as a result of the inflationary processes is often hidden or misrepresented in the technicalities of the presentation of the inflation statistics in terms of an artificially-restricted wholesale price index and its rate of growth, rather than the simple and directly comprehensible method of reporting the movement of the consumer price indices, all with a common base year. This allows one to make a



simple and direct comparison of the real purchasing power of the consumer's rupee as determined by the price movements over time. It can be seen that with the base year value of 100 paise for a rupee in 1990-91, inflation resulted in the real purchasing power of the rupee being reduced to mere 29 paise in terms of wholesale prices and 25 paise in terms of the prices for industrial workers by April 2010.

Thus, a major part of the people's hard-earned money has been made to travel to the coffers of the rich and the rentiers, while the toiling masses suffer growing deprivation. The later data indicate further erosion and hence transfer to the trading, producing and hoarding classes, which include all the big foreign grain merchants, buying directly from the farmers in the immediate post-harvest season as also the mushrooming big organised retailers and traders operating in about 7,177 organised mandis functioning under the liberalised Agricultural Produce Marketing Committees Act of 2003.

Growing hunger; malnutrition

The other side of such enormous unearned transfers to the people, who buy today and sell in future in an incessantly inflationary economy, as a virtually risk-less operation, is the accentuation of hunger, malnutrition, squeezing of the

demand for non-food items locally produced by the informal sector entities as well and loss of unorganised work and income opportunities. The absence of any positive and regular supply response to increasing prices goes to show that these gains go to the non-cultivating groups and strata. Even after allowing for erratic monsoon and offsetting it, to an extent, by the expected positive output impact of increased farm and, especially, irrigation sector investment, one would be hard put to reconcile long period stagnation and decline of the agricultural sector if the putative gains from rising farm prices in the framework of the policy of minimum support prices were to reach the real cultivating classes.

It is because of the perverse role of the new and existing institutional factors, especially of the changes introduced under the liberalisation era, that a sector whose product prices are rising is not able to show a positive supply response and the farmers have been forced by the adverse circumstances to adopt relief by resorting to suicides at the rate of 47 persons a day over much of the liberalisation era.

Getting the prices right?

In the midst of such price trends and policies, one wonders what has happened to the neo-

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liberal promise of "getting the prices right"! The experience of India, over the last two decades of neo-liberalism, has shown that it is rare indeed for these policies to stick to the goal of macroeconomic balance and opt for decisive action to obtain a low level and rate of inflation. In such circumstances, it would be utopian to assume that any effort to protect the meagre purchasing power of the poor consumers and price-taking majority of the people vis-à-vis the huge windfall gains made by the small groups, who call the shots in the market processes as the price-givers, would work. It certainly cannot, with the government admiring and accentuating the play of the market forces of demand and supply and holding forth frequently renewed assurances to the people about the impending period when the raging fires of inflation would be partly doused by the working of the market and monsoon forces.



There is little need to recall how the energy prices too are a reflection of narrow-minded fiscal prudence and tax policies that fail to see the implications of heavy taxes on universal intermediates such as the sources of energy. The distorted priorities and absurdity in making the automobile sector as large as the cereals producing sector is simply beyond the mental reach of the blinkered world view engendered by the touching faith in the so-called magic of the market.

Illusory comfort

A closer look at the performance of the Indian economy during the last two decades of neo-liberalism, however, shows that whenever inflation is accompanied by a spell of high rate of growth, the policy establishment tends to restrict itself to some ritual expression of concern over the uncontrolled and what seems to be treated by them as an uncontrollable spurt in the price level. Of course, for public consumption some token, generally monetary policy, action largely by way of posturing is showcased because for the people at large inflation is a matter of far grievous hurt than the illusory comfort provided by the high growth story.

During the last few years one has come across many explicit statements by the Indian policy establishment to state its unwillingness to sacrifice growth at the altar of anti-inflationary policies. The choice becomes particularly unwelcome as a result of the accentuation of social exclusion as both the growth and inflation are sharply dis-equalising:

According to the revised view of the Indian planners, any one with Rs 13 per day expenditure in rural India and with Rs 17 per day in urban India is treated as above the mysterious and spurious poverty line that is supposed to provide for at least the subsistence level of living to the citizens endowed with the right to life, liberty and a say in the affairs of the state!

while the growth is concentrated in the narrow corporate and organised sectors (incorporating less than seven per cent of the adult population) the price rise is concentrated in the poor person's goods, more specifically in the food group of commodities. With a dysfunctional and token public distribution system (PDS) people have to depend largely on the market sources.

A recent World Bank study has shown that the top 20 per cent of Indians command over 45.4 per cent of the country's GDP and the bottom 20 per cent have to make do with around 8.6 per cent share of the GDP and that too not necessarily in the form of mass consumption goods priced at affordable levels. Read along with the harsh reality that provoked an adverse comment by the Supreme Court, according to the revised view of the Indian planners, any one with Rs 13 per day expenditure in rural India and with Rs 17 per day in urban India is treated as above the mysterious and spurious poverty line that is supposed to provide for at least the subsistence level of living to the citizens endowed with the right to life, liberty and a say in the affairs of the state!



One finds the authorities spreading false reasons for the current inflation. Among these are the reasons that have no basis, including the impact of MNREGA (it barely touches the problem of livelihood security for a tiny part of the rural labour), global inflation (denied by the official Economic Survey, page 73 in Hindi edition), improved intake by the people and so on. It may be noted that the per capita food intake in the rich countries is generally three to four times larger than that seen in the poor countries. It suggests that the richer sections in India too end up buying much of the declining food availability.

The consuming rich

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no sense to follow Bush and claim that it is the higher consumption by the poor that is driving food prices up! Since inflation has had a long-term lasting presence in India, it becomes by itself a self-accentuating factor owing to the perverse redistribution it enforces.

Any claim about competitive pricing in India is simply a myth, a kind of not-so-innocent fraud, to use a phrase popularised by JK Galbraith in a similar context. The general price level has constantly been moving up in India, of course, with varying speeds, from the mid-1950s. This is evident from the movement of the index number of the net national product at current prices from 105.4 in 1954-55 to 24,446.5 in 2003-04 and then with the new 2004-05 base to 206.9 in 2009-10, compared to the comparable period movement of the index number of net national product at constant prices from 116.6 to 957.3 and just 150.1, respectively.

It is clear that inflation in India has been one of the prominent and permanent mechanisms for robbing the poor excluded masses in order to endlessly enrich the super rich with all its adverse consequences that neo-classical economics turns a blind eye to. The solution lies in the policymakers

- (1) switching over from the goal of mild and targeted inflation as a spur to the corporate sector-led growth (forgetting the price relativities)
- (2) adopting relative price stability at levels that reflect the real needs of the economy and evoke positive supply response whenever the prices move out of appropriate alignments and move to wipe out the windfall gains garnered by the mercantile capital in times of unavoidable scarcity
- (3) strengthening a universally-accessible PDS by way of a standby arrangement.

Using levers of price stabilisation by inter-temporal supply adjustment, the menace of inflation would remain despite all the discomfort it causes, notwithstanding the push up it gives to an inappropriate pattern of growth. ●

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**COVER
STORY**

Food Inflation: **INDIA'S PERMANENT CHALLENGE**

Naresh Minocha





Balancing the conflicting interest of farmers, intermediaries and consumers is a tightrope walk for the Indian government even when there is price tranquility. This balancing exercise has become nightmarish in recent years with food inflation showing persistency and turbulence. These developments prompted the Cabinet Secretary to constitute an inter-ministerial group (IMG) to manage overall inflation with a focus on prices of primary food items in February 2011.

The food inflation has lately declined from the double-digit levels witnessed in 2010. It stood at a stomach-wrenching 18.32 per cent for the week ending December 25, 2010. The latest official release on the Wholesale Price Index shows that the food inflation rate stood at 7.7 per cent for the week ended April 30, 2011.

Fruit prices

The inflation rate for fruits was at a worrisome 35.43 per cent. The annual rate of inflation, calculated on a point-to-point basis, stood at 11.96 per cent for the same period. There is, however, no room for complacency in managing food prices as they are prone to frequent and steep upswings. There is near unanimity among the rich and the poor countries that food inflation is here to stay due to several reasons and has to be fought effectively.

Among the rich, the United States spent more than \$62.5 billion on 18 domestic food and nutrition assistance programmes in 2008 to insulate vulnerable people from food inflation. According to a report issued by United States Government Accountability Office in April 2011, "The prevalence of food insecurity hovered at 10-12 per cent over the past decade until it rose to nearly 15 per cent (or about 17 million households) in 2008."



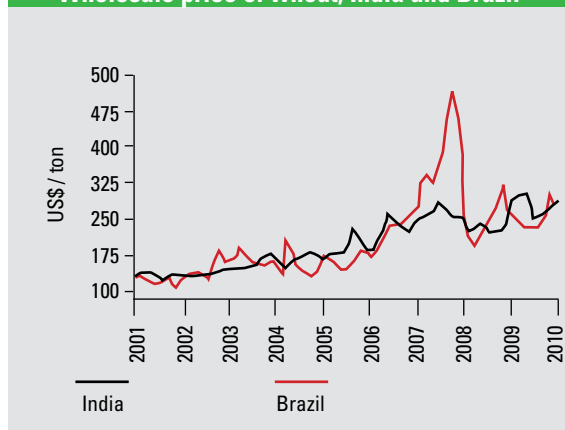
The oil factor

The factors contributing to the food price spiral include exploding population, changing food habits leading to rise in demand for processed foods and meat, diversion of land and other resources to enhanced production of bio-fuels and frequent and severe changes in weather.

The fundamental or rather the permanent factors contributing to food inflation are embedded in the energy-intensive nature of modern farming. The diesel for tractors and for water pumping comes from crude oil, which is controlled by the price cartel (OPEC) and the speculators operating through the commodity exchanges.

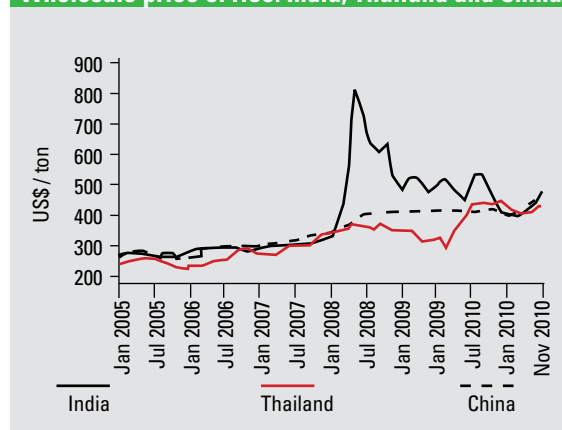
The electricity used for irrigation is subject to regular rise in tariff due to frequent increases in natural gas and coal prices. So is the case with the fertilisers, especially potash, the price of which is controlled by two international cartels. As India is heavily dependent

Wholesale price of wheat, India and Brazil



Economic Survey

Wholesale price of rice: India, Thailand and China



Indian economy: select indicators (extracted from the Economic Survey, 2010-11)

1	1950-51 2	1960-61 3	1970-71 4	1980-81 5	1990-91 6	2000-01 7	2006-07 8	2007-08 9	2008-09 10	2009-10 11
Economic Indicators										
GDP at factor cost at current prices	9719	16512	42981	132520	515032	1925017	1952241	4581422	5282086 ^{PE}	6133230 ^{QE}
in ₹ crore										
GDP at factor cost at constant prices	224786	329825	474131	641921	1083572	1864300	3566011	3898958	4162509 ^{PE}	4493743 ^{QE}
in ₹ crore										
Per capita Net National Product at constant prices	5708	7121	8091	8594	11535	16172	28083	30354	31801 ^{PE}	33731 ^{QE}
in ₹										
Gross Domestic Capital Formation as percentage of GDP at current market prices	8.4	14.0	15.1	19.9	26.0	24.3	35.7	38.1	34.5	36.5
Cross domestic savings as percentage of GDP at current market prices	8.6	11.2	14.2	18.5	22.8	23.7	34.6	36.9	32.2	33.7
Index of agricultural production (Base: triennium ending 1981-82)	46.2	68.8	85.9	102.1	148.4	165.7	200.7	207.1	192.8	179.9
Index of industrial production ^a (Base: 1993-94=100)	7.9 ^b	15.6	28.1	43.1	91.6	182.6	255.0	277.1	286.1	316.2
Wholesale Price Index average ^c	6.8	7.9	14.3	36.8	73.7	155.7	111.2	116.5	125.9	130.4
Consumer Price Index for Industrial workers average ^d	17.0	21.0	38.0	81.0	193.0	444.0	125.0	133.0	145.0	163.0
OUTPUT										
(a) Foodgrains (million tonnes)	50.8	82.0	108.4	129.6	176.4	196.8	217.3	230.8	234.4	218.2 ^a

PE: Provisional Estimate QE: Quick Estimate; a: The Index of Industrial Production has been revised since 1993-94. The indices have been recomputed from April 04 onwards using new series of WPI for the IIP items reported in value terms. b: Relates to the calendar year 1950. c: New series of WPI has been released from 2004-05 with base 2004-05=100. d: CPI-IW: New series is based on 2001=100. e: fourth advance estimates.

on imported crude and gas, potash, sulphur, rock phosphate and its downstream products, the food inflation partly originates from abroad.

When the government moderates the impact of a rise in prices of basic inputs and services used in agriculture, it translates into oil and gas subsidies, fertiliser subsidies, and electricity subsidies. The impact of changes in the global market for fertilisers and raw materials on Indian food prices is bound to increase under the nutrient-based subsidy scheme that allows fertiliser companies to pass on the hike in prices to farmers.

Input costs

Apart from the rise in price of overseas-originating inputs, a farmer has to pay for the increase in cost of other inputs such as seeds and hired labour. All this casts an obligation on the government to announce a yearly hike in minimum support prices (MSPs) of

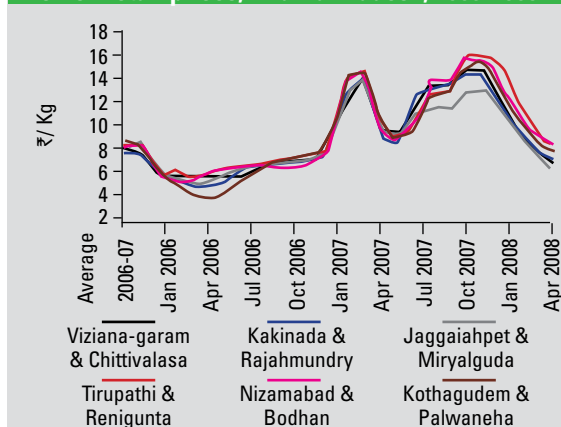
food crops. The MSP hikes have by and large been modest for wheat, rice and other cereals as compared to those for pulses and oilseeds. The relatively sharper raise in MSPs for pulses and oilseeds has not induced farmers to take up the production of these crops in a big way.

MSP announcements, however, send price signal to both the domestic and overseas markets that regularly supply pulses and oilseeds to India. Ironically, MSP for pulses has led to India export-centric pulses farming in certain countries! The continued and heavy reliance on imported pulses and oilseeds is thus the second primary factor that contributes to food inflation.

As there is no MSP for vegetables and fruits, their prices are subject to changes in weather. The unseasonal rains last year, for instance, damaged the onion crop in Maharashtra, causing onion prices to skyrocket across the country. Changes in

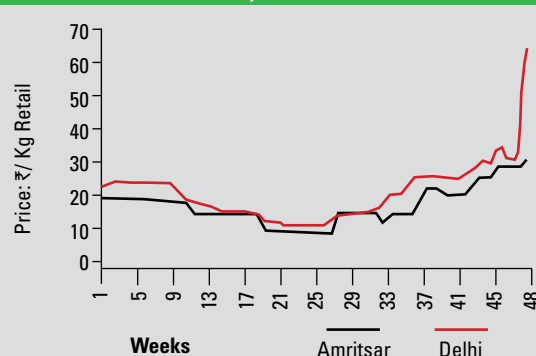


"Well behaved" and convergent regional series of onion retail prices, Andhra Pradesh, 2006-2008



Economic Survey

Temporarily less "well-behaved" weekly retail onion price movements, Northern India. Delhi versus Amritsar, Dec 2009 - Dec 2010



the vegetable and fruit are also prone to transport bottlenecks, inadequate cold storage capacity, manipulations by traders. Making matters worse are the half-hearted and slow pace of agricultural marketing reforms by the states and the centre's soft corner for forward trading in food commodities.

The periodic and sharp upswings in market manipulated prices of vegetables and fruits cannot be avoided. They can only be managed through efficient supply side policies such as well-disbursed chain of cold storages and transformation of India into a single farm market.

As put by Prime Minister, Dr Manmohan Singh, in January this year through a statement issued by

his Press advisor, "The current bout of inflation is driven by a rise in prices of vegetables and fruits which is more difficult to manage because these commodities are not held in public stocks. The rise in prices is partly due to late rains, which affected the onion crop. There is also an underlying increase in prices of milk, eggs, meat and fish, which is the result of fast growth of the economy, leading to rising income levels, combined with the effect of several inclusiveness programme, which put greater income in the hands of the relatively poor whose food consumption increases."

The central and state governments should manage the price volatilities through timely and effective interventions in the perishables markets to save farmers from distress sale in times of glut and to save consumers in times of crop failures. Official statistics show that there were 7,566 regulated wholesale markets and 20,887 rural primary markets in 2009. The average area served by a rural market is 116 square kilometres (sq km) as against 80 sq km recommended by the National Commission on Farmers.

This underscores the duty of the states to set up more rural markets and regulated wholesale markets with back end cold storages. This also serves as a reminder for them to implement fully the model Agricultural Produce Marketing Committee (APMC) Act, which was unveiled by the union government in September 2003. The model law can have salutary effect on food inflation over the long term.

The Model APMC Act provides for setting up of private, cooperative, farmer-consumer and direct marketing platforms. It dispenses with the services of commission agents. It paves the way for single point levy and payment of market fee. Only seven states have so far effectively implemented the Model



Act. Effective management of food prices calls for radical market reforms including facilitation of contract farming and organised retail for perishables. At its second meeting held in March 2011, the IMG discussed “the need to revise our APMC Act and encourage competition among traders and also to promote efficiency in retailing.”

Mouths to feed

Reform or no reform, grappling with food inflation will always be a herculean task for the central government due to the gargantuan growth in population and diversion of land and water from farming to non-farming sectors. Census 2011 results show that the country’s population has increased by more than 181 million during the decade 2001-2011.

“The absolute addition is slightly lower than the population of Brazil, the fifth most populous country in the world!” says the Registrar-General and Census Commissioner.

Successive governments have behaved like ostriches while dealing with the population menace. The Parliament discussed population control in August 2010 after a gap of about 34 years and that too due to the courage mustered by the Minister for Health and Family Welfare Ghulam Nabi Azad.

According to an estimate, the country’s population might increase and stabilise at 170 crore in 2070 from the present level of 121 crore, if family planning schemes are implemented at the current pace. Has any economist ever simulated the impact of this population bomb on food inflation? Would food inflation trigger food riots in the long-run?

As the country grows and the personal incomes rise in tandem, the demand for food commodities and processed food is bound to rise. The growth-induced increase in income and living standards is



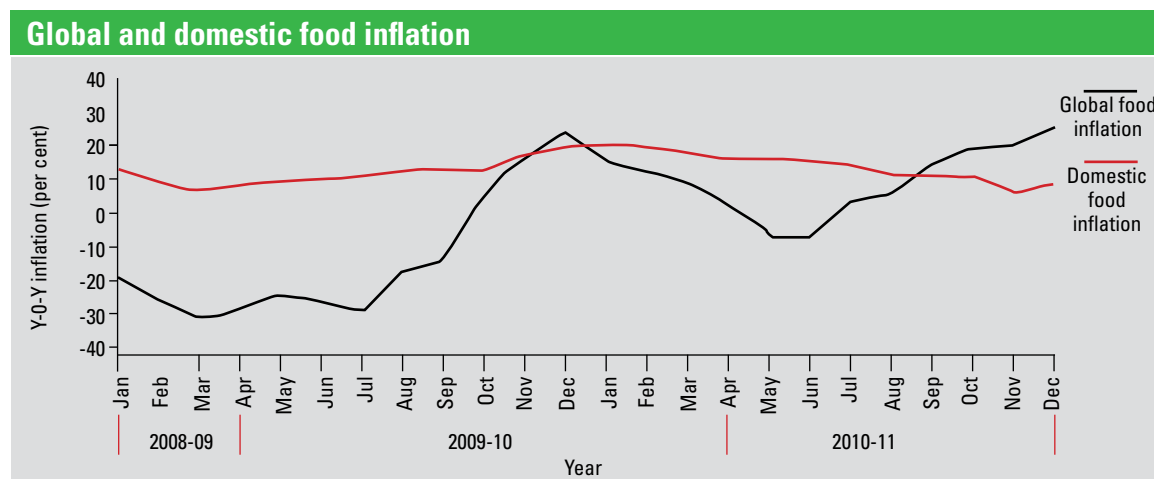
thus yet another permanent factor contributing to the rise in food prices.

The Government has compounded the food price management problems for itself by allowing diversion of foodgrain to distilleries for production of alcohol for diverse uses including human consumption. (See box: *Food versus liquor*)

Forward trading

The government’s laxity in taming food inflation is also evident in the area of forward or futures trading in food commodities. In spite of vociferous demand both within and outside Parliament for a ban on speculative forward trading in foodgrain, the government insists that there is no hard evidence to suggest that forward trading contributes to food inflation.

There are conflicting international studies on the impact of futures or forward prices on spot prices



Economic Survey

Food versus Liquor

The central and the state food processing policies have benefited the alcohol industry in a big way. The policies facilitate the manufacture of grain-based alcohol that is modified later for use as liquor, industrial alcohol, or for any other non-potable application. Companies do not require any industrial licence to set up a grain-based distillery or modify a molasses-based distillery into a dual-feed facility that can use grain as well.

They, however, need to secure environmental approval from the Union Ministry of Environment and Forests. This ministry is very generous in granting approvals for grain-based ethanol projects as food inflation is not its concern. On an average, the MoEF grants a dozen or so such approvals in a year. Data on grain-based distilleries or grain-cum-molasses distilleries is hard to come by. No authority checks whether the distilleries use broken or damaged grain or grain in fairly good condition that is fit for human consumption. Whatever the quality of grain, it cannot be denied that distilleries compete with other food processing industries and animal feed units for grain and, to that extent, add to food inflation.

The centre introduced the policy for production of potable alcohol from grains in 1988. Through a notification 'creation of additional capacity for manufacture of alcohol based on non-molasses raw materials', the government allowed use of potatoes, tapioca, coarse grain, spoiled wheat/rice, and fruits of various types. There is no monitoring of the use of feedstock. Some companies have disclosed in their applications or in their project proposals that they would use wheat flour as feedstock for production of alcohol. Several grain-based whisky brands have been in the market for several years.

Though data on the consumption of grain by such units is not available in the public domain, they certainly consume several thousand tonnes of grain/flour per day. Neither political parties nor the civil society groups have as yet raised banner of protest against grain-based

distilleries. There seems to be tacit understanding among the opinion leaders of all shades that grain-based liquor goes well with changing lifestyle and tastes of Indian society.

of commodities. What, however, cannot be pushed under the carpet is the fact that pure-play investors are taking positions in future food prices to earn a fast buck, thereby stoking fires of food inflation.

In a policy brief issued in June 2010, the Food and Agriculture Organisation (FAO) notes: "commodity futures are generally traded before their expiration date. As a result, futures also attract investors who are not interested in the commodity as such, but in making a speculative gain."

Under the garb of helping the growers to secure improved prices for the crop produce, the centre is, however, set to create new business opportunities for speculators through the Forward Contracts (Regulation) Amendment Bill 2010. The opportunities would emerge from the introduction of options in goods including foodgrain and commodities derivatives.

Forward trading in food items should ideally not be allowed and if it is to be continued and expanded, it should be delivery-based; no paper transactions. All multilateral and regional agencies, including the International Monetary Fund (IMF), agree that food inflation requires multi-faceted policy responses from the government over the short-term, medium-term and the long run.

Making the poor poorer

Frequent and steep rise in food prices not only hurt the poor but also make them poorer and push others down the poverty line. The Asian Development Bank (ADB) notes that a 10 per cent rise in domestic food prices in developing Asia could push an additional 64.4 million into poverty, or lead to a 1.9 percentage point increase in poverty incidence based on the \$1.25-a-day poverty line. If the Indian government adopts this internationally accepted definition of poverty, the number of people below the poverty line would increase by millions. This, in turn, would require the government to allocate more foodgrain under targeted public distribution system (TPDS) and the forthcoming National Food Security Act (NFSA).

The centre defines the poverty line as the cost of an all-India average consumption basket at which calorie norms are met. The norms are 2,400 calories per capita per day for rural areas and 2,100 calories for urban areas. The government assigns monetary value to these survival diets. Thus, the monthly expenditure for these calorie intakes is Rs 356.3 a month in rural areas and Rs 538.6 a month in urban areas at 2004-05 prices. A person who cannot afford





“Simulation results suggest that if a 30 per cent increase in global food prices persists throughout 2011, GDP growth for some food-importing countries in the region could be choked off by up to 0.6 percentage points”

– ‘Global Food Prices and Developing Asia’ released in April by the ADB

to spend this monthly expenditure is considered below the poverty line.

In its report submitted in December 2009, the Planning Commission-constituted expert group on estimating poverty revised the rural poverty line at Rs 446.68 and urban poverty line at Rs 578.8 at 2004-05 prices. Using the revised definition, the group increased the estimated percentage of persons living below poverty line to 37.2 per cent of the total population for 2004-05 from 28 per cent for the same year reckoned by the XIth Five Year Plan.

Doubts over data

The NFSA's enactment has been delayed due to differences within the government as to how many poor people to include under food security cover and what should be the quantum of subsidised food under the proposed law. The government does not have any real-time mechanism to identify the persons who slip below the poverty line or for whom the poverty intensifies with each percentage increase in food inflation. Thus, food inflation has cast a long shadow on the efficacy of country's anti-poverty schemes. Economists fear liberal and largescale implementation of NFSA would itself increase the demand for food, putting pressure on open market prices.

In January this year, the Prime Minister's Economic Advisory Council (PMEAC) forthrightly

noted that the enactment of the NFSA, as drafted by the Sonia Gandhi-chaired National Advisory Council, would require massive increase in food procurement in domestic market and food imports to provide subsidised food to 75 per cent of the population. The increase in procurement would not only push up the open market prices but also increase the food subsidy bill.

The pent-up demand for food in India indicates the potential for food prices to rise. Food inflation thus must factor in under-nutrition and malnutrition, as reflected in Global Hunger Index (GHI) 2010 released by International Food Policy Research Institute (IFPRI).

The index ranks countries on a 100-point scale, with 0 being the best score (no hunger) and 100 being the worst. India is placed at the 67th rank with a score of 24.1.

Undernourished

The GHI release issued in October 2010 said: “India is home to 42 per cent of the world's underweight children and 31 per cent of its stunted children.” The GHI scores are based three equally weighted indicators. These are the proportion of people who are undernourished, the proportion of children under five who are underweight and the child mortality rate in a country. The government copes with under-





Food inflation also stimulates the non-food inflation. Both food and non-food inflation are synergetic. They fuel each other

nutrition and malnutrition through schemes ranging from targeted PDS to mid-day school meals.

Food inflation also stimulates non-food inflation; both food and non-food inflation are synergetic and fuel each other. As a working paper released by the IMF in April this year says: "food inflation in many countries is transmitted into non-food inflation in a significant and important way and, again, this is particularly so in developing economies. In both rich and poor countries, large upward food price shocks are propagated into non-food prices relatively quickly. However, this effect is much more pronounced in poor countries than in rich countries: in rich countries, a one per cent shock to food prices on an average results in a 0.15 per cent increase in non-food prices but in poor countries the average is around 0.3 per cent."

Penalized farmers

The overall inflation, in turn, not only forces the government to increase consumer subsidies but also resort to fire-fighting measures such as banning export of price-sensitive commodities and opening floodgates to food imports. Cheap imports help the government to secure temporary respite from criticism against mishandling of food inflation. They, however, harm the long-term interest of farmers. This, coupled with non-food inflation, wipes out whatever little benefit the growers derive from the terms of trade between the farming and

non-agriculture sectors. Another adverse impact of inflation is the slow-down in the economic growth rate partly on account of price control-focused monetary policy and partly due to diversion of funds from productive outlays to subsidies.

In a report titled 'Global Food Prices and Developing Asia' released in April, the ADB says: "Simulation results suggest that if a 30 per cent increase in global food prices persists throughout 2011, GDP growth for some food-importing countries in the region could be choked off by up to 0.6 percentage points. If a 30 per cent increase in world oil prices is added on top of the 30 per cent increase in global food prices, GDP growth could be reduced by up to 1.5 percentage points compared with the baseline scenario where food and oil price hikes do not occur."

In the long-run, the food inflation can be managed through massive investments in agriculture. The focus has to be on management of soil and water resources, fertigation (application of liquid fertilisers through drip irrigation systems), breaking crop yield barriers through new varieties and improved agronomic practices. All these measures have to be backed with the provision of price incentives to farmers and targeting of food subsidies to the poor.

More importantly, all efforts to manage food inflation can fail to fructify if population is not stabilised at the level where the population grows at the replacement rate. ●



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IFFCO KISAN SEZ - Nellore

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▪ **IFFCO Kisan SEZ** is a notified Multiproduct Special Economic Zone spread over 1000 hectares located 22 KM North of Nellore, A.P. It comes with many customs duty and sales tax concessions provided by the government of India to promote economic activity in notified Special Economic Zones. The concept of Agropark is based on the principles of sustainable development, i.e.

- Application of principles of industrial ecology, i.e. mutual use of waste and by-products.
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▪ **Land at IFFCO Kisan Project site** is being offered on long term lease basis for 33 years for potential Entrepreneurs for setting up their units on attractive terms and conditions. For further details contact our website www.iffcokisansez.com or can be obtained from,

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FOOD AND INFLATION: TIME TO EXPOSE THE NON-LINEARITIES

Dhrubajyoti Ghosh

On May 5, in Nattakallu near Mulleria, Kerala, Prajitha, a two and a half year old girl, a suspected victim of endosulfan, died. The absence of timely medical care at the Kerala government run hospital was the immediate cause: the child was refused admission on the plea that the paediatrician was on leave. She reportedly died at a private hospital later (*The Times of India*, May 6, 2011). The cost of Prajitha's death is not included in the price of food that is used to calculate inflation but the locals have a fair understanding of the actual price that they pay for the food that they consume.

Travel in the villages of West Bengal and, accidentally, kill a hen. You will be surrounded by folk economists

immediately, who will demand at least Rs 1,000 from you because the hen could have had 100 chicks, which in turn would have had more and so on. Appreciating the distress of the traveller, the traditionally benevolent villagers round off the amount to Rs 1,000 only. What the villagers can calculate so easily, intellectuals have failed to do and the Prajithas who keep on dying here, there and everywhere, are not assigned any cost for their lives when the government works out food inflation; costs induced by consuming food.

True cost of food

The more a farmer spends on fertiliser and pesticide, which he believes that he must to maintain yields from his gradually decaying parcel of land, the more



is the rise in the disease burden amongst those who produce the food and those who consume it. Also on the rise are profits of the pharmaceutical sector that makes the medicine available to the victims and the earnings of the doctors. Once again, none of these costs are reflected anywhere in the so-called price of food considered while calculating inflation.

It is not just about one shortcoming in the way India calculates food price. It is about a fundamental gap in the economic theory of calculating inflation based on food prices. What has been assumed to be a linear function is really a greatly non-linear one. It is well-known that market-based calculations in economics do not provide the consumers with proper information.

The social costs like the death of a run-over hen or Prajitha, howsoever real they might be, are euphemistically termed as 'externalities'.

Corporate economists, said Fritjof Capra in his book, *The Web of Life*: a new synthesis of mind and matter, "not only treat the air, water and soil as free commodities but also the delicate web of social relations, which is severely affected by continuing economic expansion. Private profits are being made at public costs in the deterioration of the environment and general quality of life, at the expense of future generations. The market place simply gives us the wrong information. There is a lack of feedback; the basic ecological literacy tells us that such a system is not sustainable".

No free nutrient

To share an outstanding experience during my umpteen village trips to the Midnapore district of West Bengal about a decade back: As I was talking with the villagers on environmental issues, I found a number of rickety, underfed children moving around. When I commented on their poor health, an elderly villager sounded almost amused at my ignorance. In brief, what he said, with a definite touch of insolence, was that the many varieties of small fish, available in plenty in the paddy fields, had become extinct. These fish were the joyful and free nutrient support for all the village children. With the introduction of pesticides, the entire stock of small fish has disappeared from the paddy fields. This phenomenon is true of many other parts of West Bengal and the country too. How do we incorporate this loss in calculating the price that devastated the most reliable nutrient support for the village children while calculating the price of paddy?

According to the WHO estimates, every year, between 20 lakh and 25 lakh people fall sick because of the chemical pesticides used in agriculture. Of them, more than two lakhs die. This is clearly a conservative estimate because there is no standard method of documenting such deaths in many developing countries. It is important to remember that 70 per cent of the 150 million child labourers all over the world are engaged in agriculture. There is a social cost here as well.

The knowledge disconnect

There is yet another serious loss caused by modern agriculture that is silently accepted by everybody. Ask the younger generation farmers if they ever consult their fathers about anything and almost no one will answer in the affirmative. Younger farmers today no longer have anything to learn from their forbears. There can hardly be a louder indicator of agriculture having snapped its ties with traditional knowledge of more than thousands of years. Dealers of agro-chemicals have now become teachers, essentially because 'fathers' do not know much about agro-chemicals. This phenomenon deserves more attention than it gets even from those who believe that traditional knowledge stock in India is under threat.

The sight of a not-so-smart farmer carefully applying pesticide that he is carrying in a small can is a common enough one in the fields of Indian agriculture. If he is asked about the dose he is applying, he is only sure that he is applying two to



three times more than what the dealer 'exclusively' told him. He is not ready to take chances! The country refuses to rise from its slumber on this disastrous practice. When will the managers of Indian agriculture be able to notice the forest behind the trees? When will everyone see the 'agrochemical holocaust' that is carefully manipulated to stay hidden from public visibility?

Medicine worse than the malaise

As book keepers, the managers of the Indian economy calculate the rate of inflation based on food prices with knowledge that is as insufficient as that of the farmer carrying pesticide in his small can, which he euphemistically calls 'oushadh' (medicine). Indeed, train-loads of cancer patients from the agricultural fields of Punjab do not bring any discomfiture to Indian planners because no formal research report identifies the cause. Worse, it is not just pesticide that is consumed through fresh vegetables and fruit. In most cases, they have artificial additives that may well be lethal for the consumer, who is kept in the dark. There is deception everywhere. The price of the food that we buy or consume





Not Newtonian mechanics

What has been discussed here falls within a theoretical ambit of calculating food price and the resultant consumer price index. Only some of the simplifications in the conventional method of calculating of food price are being contested here. It is important to understand that the linear relationships between cause and effect do not always correctly reflect the real price of food, which is very likely to be a function of non-linear relationships within the market and society, where human mind and behaviour are under constant and mindless assault by the rent seekers and profiteers. In fact, Gregory Bateson, the noted anthropologist and social scientist, explained the phenomena of non-linearity in living systems in his famous example of kicking a stone and kicking a dog. The stone's reaction to the kick, according to a linear chain of cause and effect and its consequence, can be calculated by applying the basic laws of Newtonian mechanics. The dog, however, will respond with structural changes, according to its own nature and non-linear pattern of metabolic organisation. The resultant behaviour is generally non-predictable.

Things are changing though: on February 18, 2011, the Central Statistical Organisation has

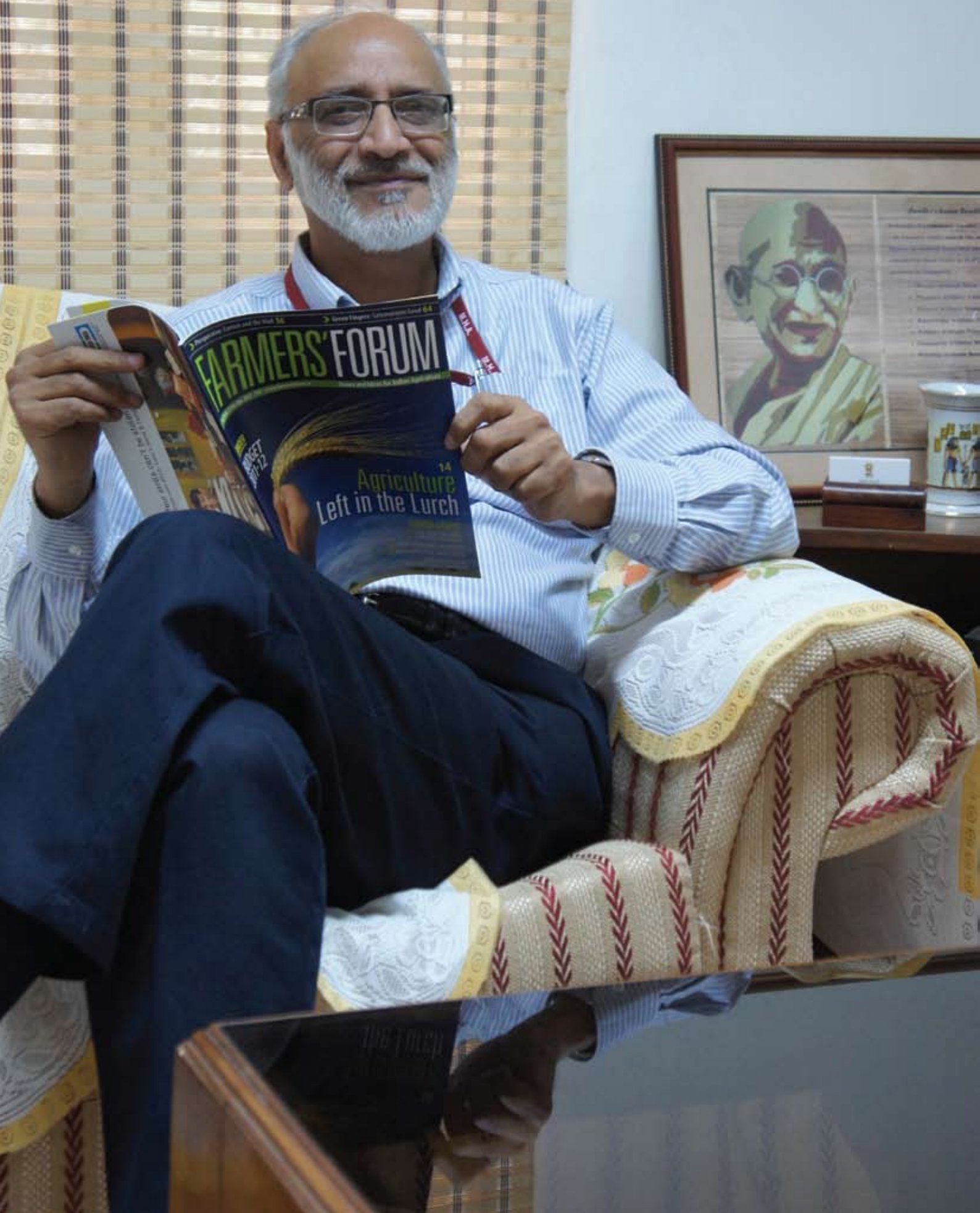
The more a farmer spends on fertiliser and pesticide – which he must to maintain yields from his gradually decaying parcel of land – the greater is the rise in disease burden among those who produce the food and those who consume it

clearly has two aspects – one that we pay directly for and the other that we pay for indirectly. Failing to inform the buyers about the indirect cost, which they invariably pay, amounts to cheating. No society can sustain this incomplete accounting system for an indefinite period and intellectuals have a role to play in exposing this chicanery. Questions that should be relevant to measuring inflation include “timeliness, weights in the price index, accuracy of food price measurement and inclusion of the prices of services” (Patnaik et al, *Economic and Political Weekly* Vol. XLVI No. 16, April 16, 2011). The two points under consideration here relate to

- (a) quality and accuracy of the information that leads to arriving at the price of food and
- (b) its impact on deriving policy measures to influence the inflationary spiral.

released a new commodity price index, with 2010 as the base year. This comes up with disaggregated values for villages and cities. It includes other positive steps and hopefully, factoring in non-linearities in arriving at the real food price will become a reality. This will indeed represent a big step forward in India's genuine efforts to reduce the poverty of the masses. In simpler terms, it will recognize such realities as food that is unsafe to eat, being enhancers of the disease burden of the consumer, results in financial drainage through health-related expenses. The market price of food does not reflect the real price that the consumer cumulatively pays. Inflation may be honestly calculated only on the basis of real price, taking into account the expenses a consumer incurs as a consequence of eating unsafe food. ●

The author, a U. N. Global 500 laureate, is the Regional Chairman, South Asia Commission on Ecosystem Management, IUCN



POLITICS, ECONOMICS AND SOLUTIONS FOR INDIA'S FOOD INFLATION

“Those that think that the market-led system is perfect are living in a dream... There is need for an optimal combination of around 70 per cent of market and 30 per cent state influence”

Ashok Gulati, Chairman, Commission for Agricultural Costs and Prices, Ministry of Agriculture, in conversation with **Ajay Jakhar** and **Paranjoy Guha Thakurta**

Paranjoy Guha Thakurta (PGT): *The Commission on Agricultural Costs and Prices, (earlier the Agricultural Prices Commission) comprises scientists, technocrats, who are ‘non-political’ experts but their recommendations are not binding on the political leadership and the Union government. Does this reduce the effectiveness of this body of experts? What should the relationship between the CACP and the political leadership be?*

Ashok Gulati (AG): Let us first see how this organisation has evolved since 1965 and what it does today. The big questions are: whether it is a statutory body; whether its recommendations are binding on the government; and what are the pros and cons of their not being so. This body was created in 1965 to recommend a minimum support price (MSP). I emphasise, not the maximum price but the minimum support price, which should be remunerative enough for the farmers to adopt new technologies. At that time, India was bringing in new seeds and expected productivity to increase. Whenever productivity increases in the absence of procurement mechanisms, prices crash. The fear then was that they would crash below the floor and would, therefore, be a disincentive for farmers to adopt technology and prevent the revolution from taking place.

Two bodies were created in 1965, within a week of each other, on January 1 and January 8: the Agricultural Prices Commission to recommend effective prices, and the Food Corporation of India, to procure the output. One saw the results. In fact, in Punjab, productivity increased so dramatically and suddenly in a single year that the FCI fell short



of storage capacity. The primary schools in the Punjab had to be closed down and the classrooms became FCI godowns in 1967-68.

PGT: *Yes, the period of the Green Revolution.*

AG: At that time, it was said that the farmer should take whatever the market could offer but that the government would give him a floor price. The procurement price and the minimum support price were, in theory, two different prices. The government was supposed to buy in competition with private trade. What happened over time was that the number of commodities multiplied – 25 commodities now – for which the CACP recommends minimum support prices. Some seven or eight other factors, apart from the cost element, have been added to the CACP's terms of reference. The cost element is supposed to weigh more (which is why the name of the organisation was changed from Agriculture Prices Commission to the CACP) but is not the sole determinant of the price.

The big issues are: is the price remunerative enough for farmers to get excited about new technologies to adopt them and increase productivity? That is the prime reason. Second, the overall demand and supply position in the commodity is taken into account. Supposing there is excess of one commodity, providing it with higher profit margins will incentivise greater production. Further, if it is not export competitive, it will lead to a domestic glut; to huge stockpiling, which is not an economically efficient way of doing things. Thus, the need to consider the overall demand and supply position. Third, the terms of trade – what is happening to agriculture vis-à-vis other sectors of the economy – has to be taken into account. The CACP is likely to look into intercrop price parity questions. Such varied factors in the global scenario must be considered.

There is no fixed formula; rather the best judgment of the commission, taking into account these costs and prices, the demand-supply situation in the country and such other factors. Today, for example,

if there is very high food inflation that the country is battling and if prices are expected to go up by 30 per cent causing another round of inflation, this is a factor that will weigh strongly with the CACP.

PGT: *To return to our other question: what should the relationship between a body of experts like the CACP and the political leadership be? Should it purely have a recommendatory role or should its recommendations be made binding?*

AG: This issue has been debated for decades. Expert committees have recommended that it be made a statutory body but the government has not accepted that; possibly for a legitimate reason. Take the wider implications of such a statutory body in terms of implementing the recommendations. For example, even after the MSP is announced, in the Hardoi market in Uttar Pradesh the price of wheat recently was lower by Rs 50 a quintal. The MSP is Rs 1,120 plus a likely bonus of Rs 50; Rs 1,170. In the Rajkot market, recently the price was Rs 1,020. Had the recommendations been statutory, the farmers could take the government to court on the grounds that they were not getting the declared MSP. This means legal complications. This is possibly why the government wants to keep it somewhat loose and recommendatory.

Your worry was about the government not agreeing with commission's recommendation. The experience is that between 80 per cent and 85 per cent of the time, the government has agreed to the commission's recommendations. At other times, the government has given more than what the CACP has recommended. Even in this very season, reportedly, the Cabinet has discussed a bonus and every newspaper is reporting that a Rs 50 bonus is in the offing for wheat.

PGT: *This is separate from the bonuses that are given by the state government?*

AG: That is different. Agriculture being a state subject and, within the constitutional framework, some states could give extra benefit to their farmers. While it may create a distortion at the all-India level, I do not see much distortion emanating from the statutory versus recommendatory role.

Ajay Jakhar (AJ): *Madhya Pradesh has given a bonus of Rs 100.*

PGT: *So, you are not entirely unhappy with the current situation in the relationship?*

AG: I would say it is 80 per cent satisfactory.



China increased rural incomes through sheer production processes; by raising productivity. There were small holders and investment in technology raising productivity and rural incomes. In fact, when China started its reforms it began with agriculture and rural incomes increased by 14 per cent per annum for six years between 1978 and 1984, reducing poverty from 31 per cent to 15 per cent. The Chinese story is largely driven by augmentation of productivity in the production process and mainstreaming that labour workforce through the production process.

AJ: *There is another aspect: as per the mandate, the CACP is supposed to recommend a price that is equally beneficial to farmers and consumers.*

AG: Yes, one has to keep in mind the consumer's interest but then prices are always high for the consumer.

AJ & PTG: *Do you not think that the CACP ends up representing both sides and not doing justice to either? There seems to be an inherent contradiction in the same body trying to balance the interests of the producer and the consumer. Some new mechanism needs to be devised. You cannot be lawyer for both the accused and prosecution.*

AG: Not really; the dual role also doubles the CACP's responsibility about not being rash in the interests of only one party. It cannot aggressively want only to increase production or to increase the farmer's income. That is not the only objective. The dual role makes the CACP more responsible. Even the ministry was, till recently, the Ministry of Agriculture & Food.

PGT: *Today you have departmentalisation: a department for agriculture, a separate ministry for rural development. In Krishi Bhavan itself, you have a department of food, department of civil supplies...*

AG: Yes and the Cabinet takes a final view of things because it does not look at sectarian interests but the national interests. When it considers the national interest, everybody is a consumer.

PGT: *The balancing role then has to be played by the Union Cabinet.*

AG: That is right.

PGT: *Coming to food inflation: everybody across the country is extremely concerned about what is happening with prices, of foodgrains in particular. What are the most important reasons that food prices have gone up and why, despite the many announcements of the government, is food inflation not coming down. From time to time, various government spokespersons have said that they were expecting the wholesale price index to come down. The credibility of the government has taken a bashing over the last two years.*

AG: It has come down to single digit, now. It had flared up along with global food prices. In 2007-

Dr Ashok Gulati, who has been the Chairman of the Commission for Agricultural Costs and Prices (CACP) from March 1, 2011, is involved with developing appropriate price policy and marketing structures for major agricultural commodities in the country. The CACP's main role is to recommend the minimum support prices for 25 major crops prior to every *kharif* and *rabi* planting seasons.

Dr Gulati has a Masters in Economics and Ph.D. from the Delhi School of Economics and has done extensive research on agricultural markets and trade liberalisation; negotiations in WTO and their likely implications on developing country interests; development of value chains; reforms in public irrigation and farm electricity systems; the role of government, corporate and civil society in the development of agriculture and rural areas in Asian countries with a view to providing food and nutritional security on a sustainable basis amongst others.



If one is putting in export controls, one must decide what the farmer's return should be. Allow the markets to give the best return and give the minimum support but, if the markets are blocked, it is incumbent on the part of the government to compensate the farmer for the return that he could have got from the markets.

08, there was a crisis globally and food prices went through the roof in most countries. Prices of even basic staples were increasing faster than in India.

PGT: *There were food riots in 40 countries.*

AG: India managed the show very well at that time. In 2007-08, the food inflation was between five per cent and seven per cent but things got a little out of gear in 2008-09 and more so in 2009-10. In 2008-09, India tried to compensate and catch up with the global prices that were much higher than Indian prices and, therefore, there were big increases in the MSP. If one is putting in export controls, one must decide what the farmer's return should be. Allow the markets to give the best return and give the minimum support but, if the markets are blocked, it is incumbent on the part of the government to compensate the farmer for the return that he could have got from the markets. So, 2008-09 saw a significant increase in the MSP and many people said that this inflation could be MSP-driven. Unfortunately, 2009-10 turned out to be one of the severest drought years after 1972 and things started getting out of gear.

PGT: *17 per cent, the food inflation...*

AG: Luckily the crop was very good in 2008-09 but it was down again in 2009-2010 and though India managed the drought, the prices started getting out of hand. Unfortunately, in 2010-11, even with a good crop, prices have not come down and the reasons may be seen in the nature of the inflation: it is not in wheat and rice but in vegetables and fruit, non-MSP

products as we say. When incomes rise, not just the consumption of cereals increases but that of fruits, vegetables, milk, curd, meat, eggs and fish. Naturally, the pressure is building up.

The indications in the economy are that incomes are improving and that is putting a pressure on the demand for the high-value segment of agriculture; the perishable segment of agriculture. The supply lines of perishable commodities are very fragmented. The ratio between what the consumer pays and what the farmer gets is typically between one fourth and one third or even more. In the case of cereals though it could be 1:2 or less than 1:2. These supply lines must be improved.

One must also understand what is happening to economic growth; not only in India, but also in the BRICs countries, the G-20 countries as a consequence of the stimulus package pumped in.

AJ: *Do you think that the National Rural Employment Guarantee Act served as a stimulus package for the Indian economy?*

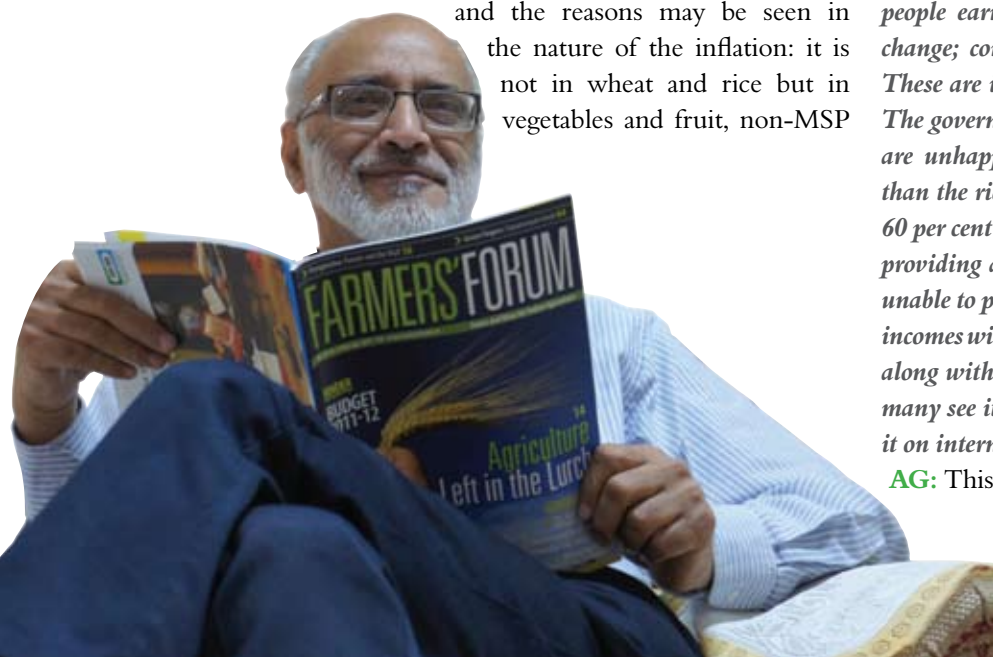
AG: Yes, of course. Rs 40,000 crore are being put into the system every year. The NREGA has two impacts. It is giving a minimum wage rate to the landless labour in a way or whoever wants to do some minimum labour. It is giving them some safety valve, which is good but the spinoff effect is that it has created a huge shortage for labour in agriculture. Today the farmer says that labour shortage is one of his biggest worries.

PGT: *This problem is confined to a few parts of the country; in grain surplus areas, Punjab, Haryana, and western Uttar Pradesh?*

AG: No; even in Orissa, agriculture wages have gone up by 43 per cent in one year.

PGT: *Why should the government be opposed to rural people earning more? As incomes grow, food habits change; consumption of cereals goes down relatively. These are inevitable consequences of economic growth. The government wants the country to grow, but people are unhappy because inflation affects the poor more than the rich. The poor spend between 50 per cent and 60 per cent of their incomes on food. At one level, one is providing a social safety net; at another level, if one is unable to protect the poor from food inflation, their real incomes will come down. This is happening increasingly along with inequalities in society. The government, as many see it, is abdicating its responsibility by blaming it on international prices.*

AG: This is very interesting. Nobody is opposed to



increasing rural incomes. It is a question of how one increases rural incomes. Globally, China increased rural incomes through sheer production processes; by raising productivity. There were small holders, and investment in technology raised productivity and rural incomes. In fact, when China started its reforms it began with agriculture and rural incomes increased by 14 per cent per annum for six years between 1978 and 1984, reducing poverty from 31 per cent to 15 per cent. The Chinese story is largely driven by augmentation of productivity in the production process and mainstreaming that labour workforce through the production process. Brazil, another BRIC country, had a very different model because of the big corporations, agri businesses and the average holding sizes being 100 times bigger than in India or China. Yet there were people and households left behind. They went in for conditional cash transfers for such people who could not be mainstreamed in the production process. The production process had built in inequality and was driven by the big people or farmers. Therefore, the need to compensate those

NREGA in five years and there are all sorts of reports around its implementation.

PGT: *A social audit is supposed to be conducted by a non-government or civil society organisation to get a national picture?*

AJ: *What about asset creation? What is the use of building a road today that gets washed away tomorrow?*

AG: That is exactly what is happening and where the challenge is. The law says that 60 per cent of the money has to go for wage component. The contractors ask how will they pay for the cement; without cement these structures cannot withstand even one rainfall. Thus, on the one hand, no productive assets are being created; on the other, labour has been diverted from agriculture and a scarcity has been created. At a macro level, the nation has to figure out how to dovetail the NREGA with agricultural productivity increases or asset creation even in farms where the labour is deployed. Otherwise, there is a clash of interests

India is following the route of giving cheap food. India gives grain at Rs 5 or Rs 4 or even Rs 2. When this happens, there are major price distortions in the commodity markets

who were left behind with conditional cash transfers. India is following another route: of giving cheap food: at present India gives grain at Rs 5 or Rs 4 or even Rs 2. When this happens, there are major price distortions in the commodity markets because the recipients sell the grain back at the market price. That is where the leakages crop up. India has also launched the unique NREGA process; the biggest experiment of its kind in the world

PGT: *The world's biggest social security programme of its kind.*

AG: One needs to reassess the programme. If it is a welfare programme, it is diverting a huge labour force from agriculture and creating a major challenge in this critical space. In an otherwise labour abundant economy, agriculture – which was the largest employer in a way of landless agricultural labour – is facing a huge shortage and going in for massive mechanisation for which it is demanding subsidies. We have to rethink in this question of whether NREGA is a welfare scheme? Can this be converted into a productive scheme? There has been no major audit or evaluation of

that may well lead to a tradeoff of Rs 40,000 crore. The annual budget of the Ministry of Agriculture is between Rs 16,000 crore and Rs 17,000 crore and India is spending two and half to three times more on a welfare scheme than on production.

AJ: *The Rural Development Minister, Vilasrao Deshmukh, has told Parliament that there is no study on the impact of NREGA on rural India, and that there is no adverse effect due to shortage of labour.*

AG: While no nationwide study has been done, wherever the CACP has gone it has met farmers and farmer delegations and has been told about the labour

One needs to reassess the NREGA. If it is a welfare programme, it is diverting a huge labour force from agriculture and creating a major challenge in this critical space. In an otherwise labour abundant economy, agriculture – which was the largest employer in a way of landless agriculture labour – is facing a huge shortage and going in for massive mechanization for which it is demanding subsidies. We have to rethink in this question of whether NREGA is a welfare scheme? Can this be converted into a productive scheme? There has been no major audit or evaluation of NREGA in five years and there are all sorts of reports around its implementation.



shortage and the agricultural labour wage rates. The picture is clear: 43 per cent increase in major states in India; across the board it is an 18 per cent to 43 per cent increase in agricultural wages in a single year, 2010-11.

AJ: Will the CACP now take into consideration the 43 per cent increase in labour costs? What is the cost of labour that it uses for assessing the minimum support price?

AG: Yes, the cost of labour is considered and the question of how much can be compensated discussed. Can it be fully compensated in a single year? A cost plus pricing on everything can lead to another round of inflation in the country. Optionally, one can compensate partially, but substantially, and ask the farmer to economise and work on cutting down costs. There are different ways of looking at things. However, there is no doubt that two costs have gone up substantially: energy and labour costs and the CACP has to consider them in its pricing exercise.

AJ: As I then understand, even though the CACP knows that the cost of labour has gone up by between 18 and 43 per cent, depending on the state or region,

Across the board, there is an 18 per cent to 43 per cent increase in agricultural wages in a single year, 2010-11

it may not take that into consideration because of the inflation factor.

AG: No. The question is how much can be compensated: whether the entire 43 per cent rise can be compensated. There is no question of not taking care of the price rise at all.

PGT: What about MSP for different crops such as millets, for example? They are high protein and can grow in rain-fed areas. There are demands that they be put in the mid-day meals scheme. Why not have MSPs for different categories of bajra, jawar and so on?

AG: We do have MSPs for bajra, jawar, ragi, which are a part of our mandate; but there are no major procurement agencies to ensure that the farmers do get that MSP in all the markets. We track what is happening to open market prices vis-à-vis the MSP that the government has declared every week and there are markets where open market prices are, indeed, below the MSP.

PGT: In other words, there is no point in having an MSP unless you simultaneously have a procurement mechanism.

AG: I would rather prune the number of commodities but make a more effective system. Otherwise, it erodes the credibility of the government's own pricing policy; if you announce an MSP and you cannot ensure it, open market prices go below that.

PGT: How do you do that? Can you depend on the Food Corporation of India to do all this? You cannot.

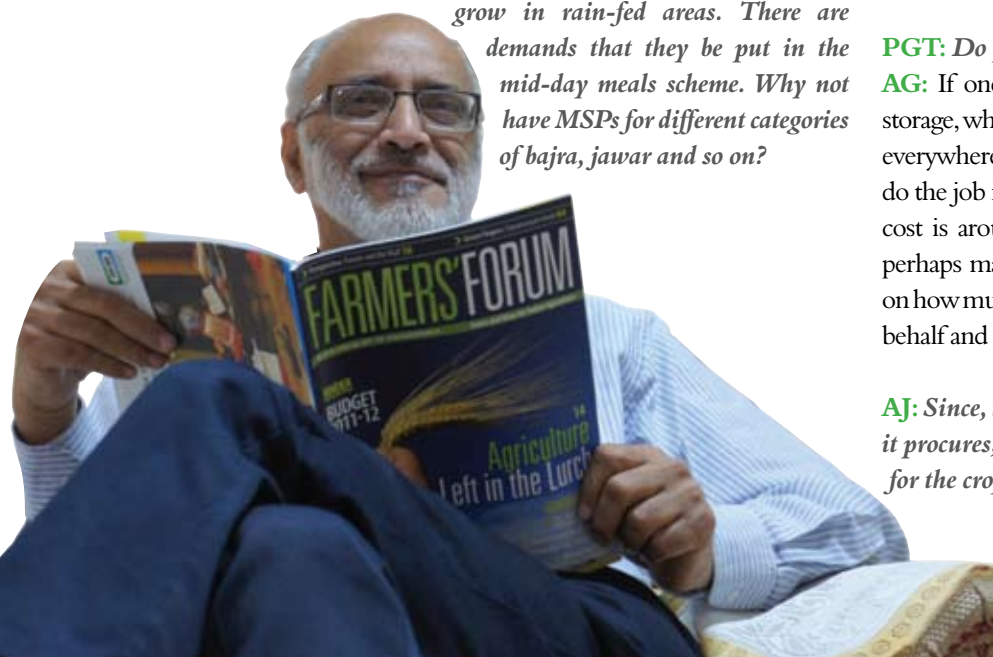
AG: Well, this is where the big debate is. Traditionally it is the FCI; in some cases it is the NAFED. The FCI works out things with the state agencies and in each state there could be different types of agencies.

Despite this, it is not able to handle it all. The big question that arises is: can you invite other players to the table. They could be food cooperatives like the IFFCO or even NGOs working in agri sectors such as the BIAF or Pradan and even private sector companies such as ITC, the Haryana Kisan Bazar and others. Can non-government bodies be invited to procure, on the government's behalf, on same terms and conditions as given to the FCI?

PGT: Do you see that as a possibility?

AG: If one can permit public-private partnerships in storage, why not in procurement? The FCI cannot reach everywhere and, possibly, non-government bodies can do the job in a more cost-effective manner. If the FCI's cost is around 10 and they can do at eight, they can perhaps make a profit and also advise the government on how much commodity is stored on the government's behalf and make deliveries when required.

AJ: Since, the FCI is not being able to store everything it procures, is it possible to announce a staggered price for the crop? There is no compulsion to deliver wheat



to the FCI in April and May but, perhaps, six months later, at a pre-announced higher price. The farmer then has a choice to deliver at the MSP announced or, if the market allows, at a higher price.

AG: I think that there are two ways that this can be achieved and this can solve much of the problem caused by almost 70 per cent of the produce coming within five weeks of the harvest and leading to storage shortage. A lot of wastage takes place during that period. One is through the warehouse receipt system.

AJ: *That has been a non-starter...*

AG: The warehouse receipt system features storages where the farmer can take the crop, not sell but store and get a 70 per cent advance because he needs money. If he gets a 70 per cent advance by placing the crop as collateral, he has the option of selling it in the market after three or four months, by when market prices may rise.

AJ: *Let me rephrase my question: can the farmer can store his own wheat and sell it to the FCI, or any government-designated agency, after six months at a differential price?*

AG: The FCI opens its big shop for wheat during these three months and then gets busy with other things. Your idea is that wheat procurement be allowed all year round.

AJ: *Yes, but the FCI then will not have to lift that wheat in three months and this will help resolve the storage problem. It will not have to store it all at one go. However, those costs and benefits could be transferred to farmers for storing that wheat.*

AG: These ideas are good ideas. In fact, a decade back this had come up when there was a crisis in the five-week-period for procurement and the 'staggering' solution was considered. It will have to be explored and may streamline some of the procurement business.

AJ: *One problem that the MSP has led to is the loss of biodiversity because most of the government procurement spending is directed at rice and wheat. If money is allocated for other crops like bajra and jawar, people would be incentivised to grow different crops and use better technology. Would you consider recommending a more than necessary price for other crops to incentivise a shift from the two-crop culture?*

AG: There are two things: if the technology does not exist, you may give a very high price but that can eat into the area of the other crop and give

The CACP has met farmers and farmer delegations and has been told about the labour shortage and the agricultural labour wage rates. The picture is clear: 43 per cent increase in major states in India; across the board it is an 18 per cent to 43 per cent increase in agricultural wages in a single year, 2010-11.

The government must have a commercial intelligence wing. What exists with the ministry looks at crops forecasting, which is only one element in the game. The Ministry of Commerce considers its own export-import perspective. For agriculture exports, there is need to monitor the world market, the stock situation and the weather at a global level and then take a timely decision to export, import or stock, to bring relative stability in the system and still make economically efficient decisions. If one does not take any decision, one may be left holding some Rs 43,000 crore of excess inventory.

some more production. The same hectare put into jawar or ragi versus wheat or rice, even in irrigated conditions, could lead to a difference of two tonnes. The nation has to consider the overall balance of cereal production in the country. The focus really is more on areas where productivity-enhancing technologies can work and the cereal basket. Rice and wheat are the two commodities where a technology breakthrough has been achieved and this whole system came into being primarily for these two commodities. It has had its heydays and I believe that there is new technology for hybrid maize, which is spreading very fast. Today, the system lives more on the market strength than MSP strength and, if the market crashes, there would be a need for MSP. However, that is going less for direct human consumption and more for poultry or industry usage. In the case of jawar and bajra, for bajra particularly, some hybrid is coming up but a major breakthrough is still awaited.

AJ: *The CACP recommendations to government are not made public. The CACP recommends and then the government announces a price. Only later are they made public. It would be a good idea to make the CACP's recommendations public as soon as they are made; the process should be transparent and in the public domain.*

AG: I am not hundred per cent sure why things are done in this manner but I understand from better informed people in the system that the government wants to examine the comments from different states till which time it imposes a confidentiality clause. Since, it is a matter of only a month or

If one can permit public-private partnerships in storage, why not in procurement? The FCI cannot reach everywhere and, possibly, non-government bodies can do the job in a more cost-effective manner. If the FCI's cost is around 10 and they can do at eight, they can perhaps make a profit and also advise the government on how much commodity is stored on the government's behalf and make deliveries when required.

a maximum of two, it is not a bad idea to get the comments from all state governments and then let the cabinet take a view.

PGT: *Why does it take so much time?*

AG: Because our systems works in slow motion (Laughing)

AJ: *Do you think that the MSP for a crop should be announced much before the sowing season to incentivise or discourage the farmer to grow it?*

AG: The effort is always to announce ahead of time though one has not been hundred per cent successful; I would say 80 per cent of the time it is announced prior to the sowing of the crop. So this kharif recommendation would be announced before June 1, because the South will start growing from June 1.

AJ: *Farmers are invited for consultations by the CACP but their views and opinions are never put into the report. When farmers come for a second meeting, the minutes of the previous meeting are not made available to them. As the new CACP chairman, would you recommend that the minutes of the last meeting be prepared and distributed and that the farmer's concerns, at least, become a part of the recommendation that is submitted to the government even if as suggestions from the farmers?*

AG: It is not true that recommendations from farmers' representative and farmers' delegations are not taken into account.

AJ: *They are not recorded and, if they are not recorded, it is presumed that they are not included.*

AG: The inputs from different farmers' organisations are sometimes so conflicting that it is difficult to record everything and put it as a part of the report that, in any case, is extremely voluminous. I can assure you though that the views of the farmers' organisations, overall, are considered very seriously and I am making an effort not only to invite them here for talks but to take the Commission to the farmers; not just meet a delegation of five farmers but 100 or 150 farmers at different places in the country and listen to them. This is the change that I envisage.

AJ: *Not just the farmers, even the state governments are complaining that the CACP does not pay heed to their recommendations and does not take their calculations into consideration. The U.P. government, for instance, is saying that the cost of sugarcane production is much more than the cost calculated by the CACP.*

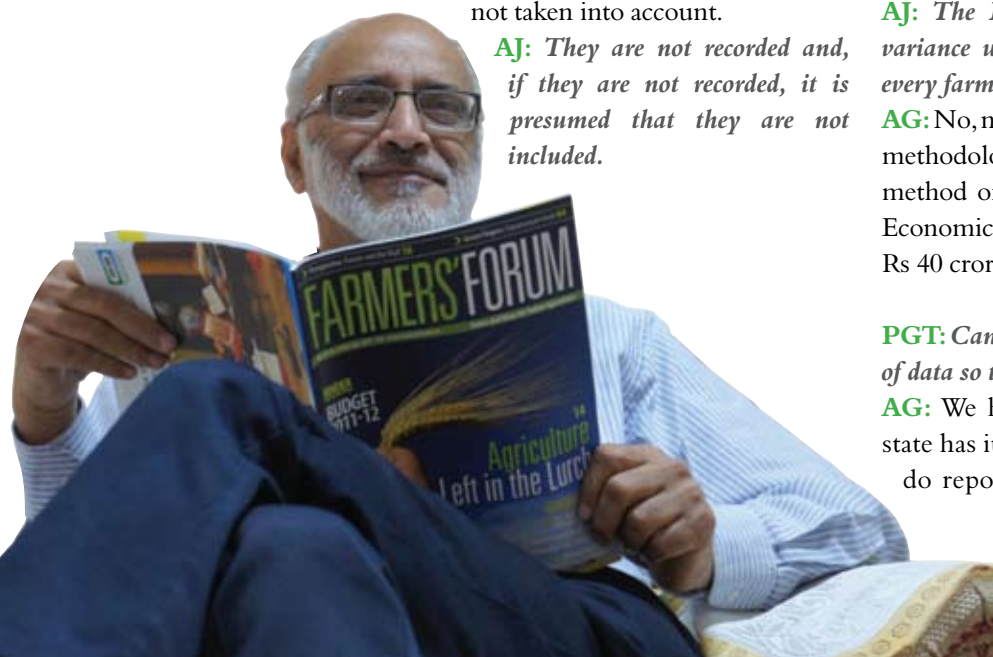
AG: It should be understood that the price recommended cannot be based just on cost. Cost is a critical input but not the only one in price recommendations. If one gets hung up only on cost+ pricing, major inefficiencies will crop up in the system. First, whose costs are we are talking about? Even between the states, the cost for the same commodity varies vastly. If one is producing at Rs 600 per quintal, another is doing so at Rs 1,200 per quintal. Second, the state costs need to be examined along with those sent by the Directorate of Economics and Statistics that collates costs using a uniform methodological framework. States use a different methodology that is not uniform across the states leading to a major variation in the methodological framework in which those costs are collated.

AJ: *The Department of Statistics seems to be at variance with every state in the country and with every farmer...*

AG: No, not so, it is only that each state has a different methodology that is not uniform. The only uniform method of collecting cost is by the Directorate of Economic and Statistics and the government spends Rs 40 crore to collect that information.

PGT: *Can you not have a uniform system of collection of data so that...*

AG: We have and that is what we use but each state has its own method of arriving at its cost. We do report them but cannot be guided entirely



by them because we are guided primarily by the uniform method for all states. However, I have asked for a study and critical analysis of what the variations have been over the last decade. If the convergence is between five per cent and seven per cent, it is fine but if the variation is 50 per cent or 100 per cent, there is need to sit down with those states and have a detailed session on their costs.

AJ: *What are your thoughts on the idea of doing away with reserved and assigned areas? Every sugar mill, for instance, gets an assigned area. This was fine for the license raj, 40 years ago. Should not farmers be liberalised from these policies and allowed to sell sugarcane to whomever they want. The farmer is not allowed to choose whom he will sell to and is denied permission to export when opportunities arise in the world market. Will you consider recommending doing away with the limitations on the farmers?*

AG: Your basic point about the farmer having the freedom to choose whom to sell to is well taken

AJ: *India is facing a glut of wheat and farmers want to be allowed to export it. If the government does so, it will not even have to use the MSP, because the international market prices are about 30 per cent higher. In a way, the farmers, instead of being compensated for the hard work that they are doing, are subsidising the consumer. What would be your recommendation in terms of allowing export of wheat?*

AG: At present that the government has more than ample buffer stocks; it is sitting on a very comfortable position and, there is, in fact, a problem of storage. With the oncoming seasons there is need to create space. There is more than 100 per cent of buffer stocks requirements and between three mt and five mt of wheat could be exported to created spaces and ease the situation for the government while fetching better returns for the farmers.

PGT: *What about looking at commercial exports when there is a storage problem?*

AG: You have hit the nail on the head. The government must have a commercial intelligence

For agriculture exports, there is need to monitor the world market, the stock situation and the weather at a global level and then take a timely decision to export, import or stock

but the issue has to be taken in its entirety. Over time, for example, a factory has been incentivised to operate out of the area to increase productivity there. Someone has invested for some five or 10 years there when another factory comes nearby, say three kms away, offers 50 paise more and takes away the crop. This will lead to cut-throat competition that has to be regulated. Ideally, the first factory can be given enough time to stabilise in terms of access to farm inputs after which the farmer should be free to sell wherever he wants to.

AJ: *These factories have been there for decades now.*

AG: These are issues with serious implications that have to be dispassionately analysed but, overall, I do buy the major point that, if at all, there should be minimal curbs on the farmer's freedom to sell. Why should a farmer be tagged to a sick mill forever if there be a sick mill? There is also need to consider securing returns for the factory that is going to invest in that area for some period of time: whether it be five or seven or 10 years. Experts have to work that out.

wing. What exists with the ministry looks at crops forecasting, which is only one element in the game. The Ministry of Commerce considers its own export-import perspective. For agriculture exports, there is need to monitor the world market, the stock situation and the weather at a global level and then take a timely decision to export, import or stock, to bring relative stability in the system and still make economically efficient decisions. If one does not take any decision, one may be left holding some Rs 43,000 crore of excess inventory. This is the entire NREGA budget and is the excess foodgrain inventory, beyond the buffer stocks norms.

AJ: *Remember there is more coming in...*

AG: The government needs to think about this

Those who think that the market-led system is perfect are living in a dream. Markets have given a shock in the last two or three but have still delivered better than states-led systems. There is need for an optimal combination of around 70 per cent of market and 30 per cent state influence. This is a rough, broad thinking based on my 30 years of experience around the world.



Rs 43,000 crore not giving any meaningful return. Even 10 per cent stocks in excess of the buffer norms is fine but keeping hundred per cent more!!! Clearly, someone has to take a decision but it is not the CACP who can take this decision. It can only highlight the issues and make recommendations. This country lacks commercial intelligence wings and it would be dream come true for the CACP if it can have one in place and take quick decisions on a fortnightly basis. The business of trade is about timely decisions because today the business is knocking at its door and India is late in making up its mind.

AJ: *While farmers are worried about exports not being opened, what worries them more is when the government will allow export of wheat. Will it be after the farmers have sold the wheat to the middleman and the FCI or will it permit exports now, to enable the farmer to make a profit?*

AG: That is exactly what I am saying; the CACP has said that this country can easily afford to export between three mt and five mt of wheat for which it would otherwise have to create space for storage. I am worried about Uttar Pradesh and Bihar, where the open market prices will go as low as Rs 1,000. We are keeping watch on them: It has touched Rs 1,050 in Hardoi (U.P.) and Rs 1,020 in Rajkot. For Bihar, I am getting figures of between Rs 1,000 and Rs 1,050.

AJ: *Will the CACP, at some stage, recommend cash compensations to farmers for crops that the government is not procuring? The government may not be able to procure from a particular region, say Rajkot. Should not the government compensate the farmers by cash in some form or the other because of its inability to fulfill its commitment?*

AG: In theory, yes. The challenge is how to administratively operationalise this. There is work in this direction on how the Unique Identification (UID)

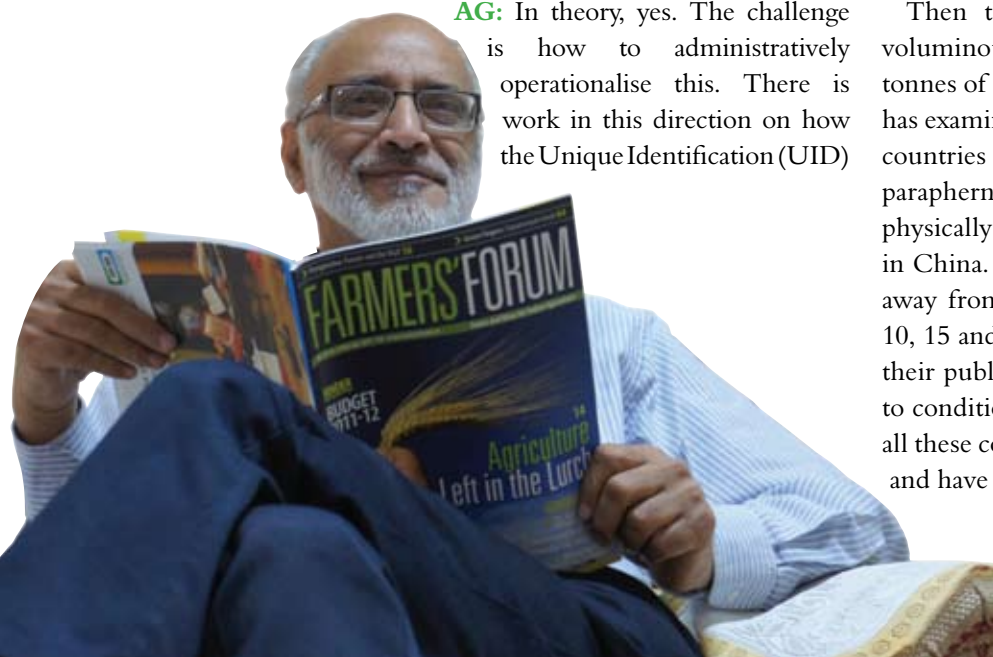
programme can be used for the purpose using an electronic platform. I believe that a promise of an MSP is a promise by the government and that there should either be an effective machinery to ensure payment of MSP or a system of compensating the farmers through some form of cash transfers.

PGT: *You have been a votary of the UID scheme, a cash transfer kind of scheme, as the way forward for improving the public distribution system, which is currently decrepit, inefficient, leaking and leading to a situation where more than half of foodgrains and cereals supplied do not reach those that they are targetted at. It has, however, been pointed out that the UID scheme is nice and fashionable but does not take into account ground realities.*

Whether it is a BPL card or a UID scheme, the problem is essentially with the political economy of India's countryside. There is an unfair exclusion of those who should be included and an inclusion of those who should be excluded. These are a factor of the caste system, economic system and the political system that cannot be sorted out with this magic wand. This is a limitation of the UID scheme and, therefore, you should not be dependent on the UID scheme for cash transfers. Your comments?

AG: The question of these inclusion and exclusion errors is not what the UID can easily handle. What it can do is avoid distorting the markets of those commodities. For example, when one is physically handling wheat and rice and also trying to sell it at Re 1 or Rs 2 or Rs 3, one is incentivising the system of mismanagement because the market price, the economic cost, is Rs 15 or Rs 20 while the wheat or rice is sold to selected beneficiaries at Rs 2. Then the same truck that goes for public distribution system can come back to procurement centre and there is Rs 12 or so to be made. Thus the markets get distorted.

Then there is the physical handling of the voluminous 70 million tonnes or 80 million tonnes of commodity, if you go by that route. One has examined how the system operates in different countries of the world. Nowhere is there this big paraphernalia of the public distribution system physically handling such a large quantity; not even in China. The best practices globally have moved away from this physical handling, not today but 10, 15 and 20 years back and they have all pruned their public distribution systems and have moved to conditional cash transfers. They exist in almost all these countries but have been pruned over time and have moved towards cash transfers.



This is because it gives them a big range of commodities and does not interfere with the diversification process. Why do you want people eat only wheat and rice? Why can they not buy eggs? They can buy edible oil, pulses, cereals, milk, anything. So let them have 15 food commodities and it can be done. Today, technology allows you to have a smart card with a chip that you can swipe and it adjusts automatically. India being an ace in that technology should demonstrate in the world how these leakages can be minimised even if they are not eliminated. No system can be perfect but today the leakage is around 60 per cent or 70 per cent. If that can be minimised to 10 per cent or 15 per cent, it will be a matter of great satisfaction.

AJ: *The Right to Food is a good development. What is your view on the Right to Remunerative Price Performance?*

AG: (Laughing) I cannot get too much into the rights approach, only time will show how right is right and how a right is supported by the dynamism

to be 70 per cent driven by cash transfers save in inaccessible areas where technology cannot work and other places where there is targeted delivery of the goods rather than other way round. This will give people the freedom to choose where they want to buy from and not go to fair price shops only. They could go to Kishore Biyani's shop if they wish to. That is the idea: to give consumers the system they want.

AJ: *There are three wings of government that are making recommendations and suggestions: The Planning Commission, the Prime Minister's Economic Advisory Committee, and the CACP. Is there any coordination among them?*

AG: On agriculture, yes. However, eventually, the Cabinet does a distillation of different viewpoints.

AJ: *The Planning Commission has failed over the years because the farmer's share in the consumer's prices is falling every year; inflation is not getting checked; and, generally, there is feeling that the Planning Commission has not fulfilled its*

No system is perfect. The state-dominated system the world over had its flaws and we shifted gears 20 years back to move towards a more market-led system

of the system. I do realise that no system is perfect. The state-dominated system the world over had its flaws and we shifted gears 20 years back to move towards a more market-led system. Those who think that the market-led system is perfect are living in a dream. Markets have given a shock in the last two or three years but have still delivered better than the states-led systems. There is need for an optimal combination of around 70 per cent of market and 30 per cent state influence. This is a rough, broad thinking based on my 30 years of experience around the world.

PGT: *What about universal public distribution system?*

AG: For universal PDS there is a need to take over 80 per cent of the market, which means that the open market will only account for 20 per cent. Procuring 80 per cent or whatever is available is not very feasible or rational; nor will it be very efficient. The objective is to protect the poor and everybody is in agreement on that front. I would like a system

mandate of planning well. The Prime Minister's Economic Advisory Committee is again staffed with professionals who are not from the field of agriculture. While 55 per cent of this country is doing agriculture, the sector does not have adequate representation in the Planning Commission, the CACP or the Prime Minister's Economic Advisory Committee. So people are designing a plan or recommending a plan for a section of the community, which does not have a representation. Do you believe that the farmer should be represented everywhere?

AG: Well, in the CACP we have farmer's representation and we do have regular meeting with farmers' delegations. In any case, professionals are trained to consider various interests. It is not necessary for one to have to plough to understand agriculture. For 30 years I have been working in agriculture and not just in India but different parts of the world. There are good ideas that one can bring from any part of world; even seeds need not come from India (laughter). ●





**CONTR
VERSY**

THE END OF **ENDOSULFAN?**

Bhavdeep Kang



Ten years ago, images of severely malformed babies born in Kasaragod, Kerala, shocked the world. Sainab, a hydrocephalic infant and others like her, were allegedly victims of placental exposure to the pesticide, endosulfan, sprayed on cashew plantations. Not since the thalidomide disaster had visuals of chemical-induced birth abnormalities so horrified the public. The battle against endosulfan, until then regarded as safe, was joined.

On April 29 this year, the Stockholm Convention recommended a global phase-out of the cheap but cheerless pesticide over five years, extendable to 11. In India, even before that deadline expires, the Supreme Court has, temporarily ruled against its use. Either way, farmers will eventually have to make do without it. (See box on Supreme Court ruling)

Protesting phase-out

Pesticide manufacturers are protesting the phase-out on the grounds that alternatives to endosulfan will cost 10-15 times as much, thereby crippling the farmer (see box *The endosulfan debate*). The underlying fear is that endosulfan may be the thin end of the wedge. Post-Stockholm, Kerala has put another 20 pesticides on its hit list.

The increasingly negative public perception of endosulfan and other synthetic pesticides, as well as spiralling prices, argues for a different approach to pest management, one that does not impact the environment through accumulation in living tissue or soils and water, contaminate the food chain, induce pest resistance, damage farmers' health, or harm creatures other than targeted pests.

Bio-pesticide option

Bio-pesticides are the obvious alternative. In combination with agricultural practices like mixed-cropping, crop rotation, summer ploughing and so on, bio-pesticides have been found to be effective.

In India, success stories include control of whitefly infestations with neem, sugarcane borers with the tiny wasps known as *Trichogramma* and diamondback moths and bollworms with the bacterium *Bacillus thuringiensis*, better known as "Bt".

Bio-pesticides come in several varieties and target insects, weeds and plant diseases with far greater specificity than their chemical counterparts (see box *Biological pest control*).

Germany's Pesticide Action Network (PAN) has brought out a booklet titled *How to grow crops without endosulfan*, which describes a non-pesticidal approach to crop management. In Andhra Pradesh, over a million acres are farmed without the use of pesticides in a government-run programme dubbed "Community Managed Sustainable Agriculture (CMSA)".

The wide usage of endosulfan admittedly makes it harder to eliminate. It is applied (and will be until it is phased out or banned) against 44 pests in 22 crops, including cotton, jute, coffee, tea, tobacco, cowpeas, beans, tomato, okra, eggplant, onion, potato, chillies, apple, mango, gram, pigeon pea, maize, paddy/rice, wheat, groundnuts, and mustard. The pests include aphids (in the specified crops); bollworms, jassids, whiteflies, thrips and leafroller (in cotton); Bihar hairy caterpillar and yellow mites (in jute); berry borer and stem borer (in coffee); caterpillars and tea mosquitoes (in tea); hoppers and fruit flies (in mango); white jassids, stem borer and gall midge (in rice) and termites, aphids and pink borer (in wheat).

Cotton accounts for nearly half the total pesticide usage in the country. The main cotton pest is the bollworm that, according to the National Centre for Integrated Pest Management (NCIPM), has shown resistance to endosulfan, DDT, chlorpyrifos, cypermethrin, fenvalerate, monocrotophos and a variety of other chemicals. This underlines the need for non-chemical management, using a combination of methods that do not induce pest resistance (see box *Managing bollworm*).

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The Endosulfan Debate

The Pesticide Manufacturers and Formulators Association of India (PMFAI), by insisting that endosulfan was not, in fact, toxic, had structured the debate over the pesticide around its "safety": the impact on human health.

Not a particularly sound move. The term "safety" in the context of a pesticide is itself anomalous; after all, a pesticide is designed to kill. Therefore, with the example of DDT – touted as safe and environment-friendly in the 1950s; banned in 1989 – before us, all pesticides must be treated as hazardous unless proven otherwise. Particularly when "safety" is assessed on the presumption that all recommended precautions are taken in the handling of the pesticide. In India, farm labour rarely has access to protective equipment or knowledge of precautions.

The PMFAI has now strategically shifted focus on the Indian farmer. At the crux of the matter, they say, is the affordability of endosulfan vis-à-vis other "plant protection" chemicals. The impression being created is that the phasing out of endosulfan will bankrupt the farmers, cause extensive crop and ecological damage and negatively impact the agricultural economy of India.

That endosulfan is cheap, as compared to

chemical substitutes, is beyond doubt. At Rs 200 to Rs 250 per litre, it beats imidachloride (Rs 2,000 per litre) and thiamethoxam (Rs 3,200 per litre).

That it is ecologically benign is questionable. It is said to have three advantages, vis-à-vis other pesticides: first, it induces less pest resistance; second, it is less toxic to honeybees; and third, it does not bioaccumulate (collect gradually in living tissue and hang around in soil and water for a frighteningly long period of time). The second may be true but the first and third are a long way from being established. Besides, endosulfan is distressingly non-specific, causing collateral damage that environmentalists find unacceptable.

There is currently no credible evidence to support the contentions of endosulfan "safety" – even if all the recommended precautions are taken. For every study giving the pesticide a clean chit, there are two to the contrary.

In Punjab's Malwa belt, Kerala's Kasaragod and Karnataka's South Canara, congenital deformities, cancer, reproductive ailments and such others have afflicted populations exposed to endosulfan (and, presumably, other pesticides). Whether or not scientists have joined the dots, the public has. That endosulfan is banned in 81 countries across the world does not help the PMFAI case.

Biological Pest Control		
Biocontrol agents	1. Predators	<i>Chrysoperla Carnea</i> (green lacewing); <i>Cryptolaemus</i> (mealybug destroyer); birds
	2. Parasites	Trichogramma, braconids (wasps); <i>Epiricicania</i> <i>Melanoleuca</i> (caterpillar)
Microbial cultures	1. Fungus	<i>Lecanicillium lecanii</i> ; <i>Trichoderma viride</i>
	2. Bacteria	<i>B. thuringiensis</i> ; <i>Pseudomonas fluorescens</i>
	3. Virus	Nuclear Polyhedrosis Virus
Botanicals	Extracts of leaves, roots, flowers, fruit or seeds, often in cow urine	Neem (<i>Azadirachta indica</i>); Besharm (<i>Ipomaea</i>); Aak (<i>Calotropis</i>)
Mechanical	1. Light traps 2. Sticky traps 3. Pheromone traps 4. Bird perches	
Mineral		Bordeaux mixture, sulphur dust



Bio-pesticides represent a tiny fraction of the total pesticide market in India, perhaps three per cent. Only 12 bio-pesticides are currently registered, compared to almost 200 synthetic pesticides

Problems areas

The eco-friendly approach to pest management has its drawbacks:

- It is knowledge and labour-intensive, as it calls for on-farm manufacture of plant extracts
- Target specificity of bio-pesticides discourages farmers who want a broad-spectrum insecticide
- Cultures are generally slow-acting, as compared to synthetic pesticides
- It has a shorter shelf life
- Its availability is erratic
- Chemical pesticides are well-entrenched with a distribution network and ready market
- The regulatory system for biopesticides is non-existent, often resulting in sub-standard products
- The disappearance of cultural practices like mixed cropping and crop rotation, which were very effective

in managing pests, have made matters worse

- The policy environment is heavily skewed in favour of chemical pesticides.

The neem option

Small wonder then that bio-pesticides represent a tiny fraction of the total pesticide market in India, perhaps three per cent. Only 12 bio-pesticides are currently registered, compared to almost 200 synthetic pesticides. The main bio-pesticide in use is neem, which accounts for approximately 85 per cent of the market share. The increasing use of neem has resulted in a sharp decline in chemical pesticides.

Although effective, Bt, NPV and trichoderma are difficult to access. An estimated 50 tonnes of Bt, 5 lakh litres of NPV and 500 tonnes of trichoderma

References

OISAT, Sristi, NCIPM, Kalra and Kanuja "R&D priorities for bio-pesticides (2007)", Maharashtra Organic Farming Federation, ICAR "Inventory of ITKs in Agriculture"



are produced annually. Microbial cultures, like *metarhizium anisopliae* and *flavoviride*, *beauvaria bassiana*, *gliocladium virens* and such others are virtually non-existent. Apart from *trichogramma*, biocontrol agents have made little headway. As for mechanical traps and lures, around 2.5 million are produced annually that are barely enough to cover 2.5 lakh hectares.

If bio-pesticides are to become readily accessible, a radical change in policy is called for. A five-pronged thrust is needed and must be promoted with the same dedication that synthetic chemicals were first introduced in Indian agriculture.

- Smallscale, widespread manufacture
- Strong distribution network
- Research and development
- Regulatory system for commercial products
- Farmer outreach programme

Production of bio-pesticides, which cannot be manufactured at the farm level (such as microbial cultures), needs to be upscaled, preferably with manufacturing facilities/laboratories in each block, to cut down on transportation miles. While 38 state-run biocontrol laboratories have been set up, their

outreach has not been successful.

The existing distribution network for pesticides could be used for bio-pesticides as well. Stocking of bio-pesticides could be made mandatory, to offer farmers a choice. To begin with, subsidies could be offered on bio-pesticides, to make them more cost-effective than synthetic products.

The agricultural extension has a critical role to play in the dissemination of technology and knowhow to the farmers. It must also coordinate between the biocontrol laboratories, distributors and farmers. Workshops and field schools should be held prior to rabi and kharif planting, to ensure vigilant monitoring of pest infestation and timely interventions.

A major R&D initiative, under the aegis of the Department of Biotechnology and ICAR, is needed to develop new products, improve quality and extend shelf-life through innovative packaging.

Most important of all, the farmer has to snap out of his quick-fix mindset. Instead of relying on over-the-counter instant solutions to pest problems, he must adopt a holistic approach to crop management. Pesticides are the last option, not the first. ●

The author is a commentator on agriculture and food policy

Managing Bollworm

A. TRAP CROP

Cotton may be intercropped with okra. Strip intercrop every 4-5 meters or grow three lines of border crop. Pest will attack the okra, leaving cotton alone. Remove okra plants at time of cotton flowering. Other border crops are sorghum and maize. Intercropping with pulses (green gram, black gram, red gram) is also helpful.

B. BOTANICALS

Extract	Material Needed	Preparation	Usage
Neem seed powder extract	Matured, dried neem seeds Mortar and pestle Basin, pail muslin pouch strainer soap (5 ml/ 10 l of water), water	Remove shells and pulps from seeds. Pound so that no oil comes out. Put powder in pail of water. Stir for 10 minutes; soak for six hours but no more than 16 hours. Stir for 10 minutes. Strain. Add soap and stir.	Use 50 g/l. Spray on plants early morning or late afternoon Neem seed extract should be milky white in colour
Dhatura extract	300g dhatura leaves with stems 1 litre of water	Dip leaves in lukewarm water. Make four parts.	Dilute each part with 15 litres water. Spray when crop is one month old. For blight, spray 4 times, at 45, 55, 65 and 75 DAS.
Dhatura – behaya (ipomaea) - sitafal extract	1 kg dhatura leaf 1 kg behaya leaf 1 kg sitafal leaf 15 litre of water	Boil leaves in water until 1/3rd volume is left. Filter.	Dilute 250 ml extract with 15 litres of water and spray. Repeat after one week.
Methi extract For one acre	1 kg methi (trigonella foenum graceum) 2 litres of water	Powder fenugreek Mix with water and keep for 24 hours	Spray half on crop Add 10 litres water to remaining solution, stirring continuously and spray.
Karanj extract	1 kg karanj leaves 5 litres water	Boil in water for 30 minutes. Strain, dilute in 15 litres of water.	Spray
Ginger extract	50 grams of ginger 12 ml of soap 3 liters of water	Grind ginger into paste. Mix with water. Add soap. Stir and strain.	Spray or brush on plants. (4 kgs of ginger to spray 0.4 ha)
Garlic bulb extract	85 gm chopped garlic 50 ml kerosene or vegetable oil, 10 ml soap, 950 ml water	Add garlic to oil or kerosene. Leave for 24 hours. Add water, soap. Store.	Dilute in 1:19 ratio Shake well, spray.
Mahua-tamarind solution	Mahua bark Tamarind bark	Mahua bark and tamarind bark are boiled and solution is filtered.	Dilute 500 ml in 5 litres of water and spray. Use only twice.

C. CULTURES

NPV (Nuclear Polyhedrosis Virus)	In case of severe infestation, spray Ha NPV @ 250-500 LE (Larval equivalent)/ha mixed in water. Add gur solution 0.5 per cent (5 g gur in 10 litres of water) and detergent 0.1% (1g nirma in 10 litres water).
Bt (Bacillus Thuringiensis)	1kg/Ha.
Nomuraea rileyi	Spray @ 2g/litre

D. BIOCONTROL AGENTS

Friendly insects	Method of use
Trichogramma Chilonis (cotton strain)	Tricho-cards contain parasitized eggs, which hatch in 7-10 days. 50,000 to 1,50,000 eggs/ha may be used starting at time of flower formation. Three to four weekly releases. Caution: Avoid exposing cards to heat. Approximate cost: Rs 25 to Rs 30 per card
Chrysoperla carnea	If infestation is serious, use 15,000 eggs/ha 3-4 times at 15-day interval coinciding with egg laying. Approximate cost: Rs 150-200/vial or, Grow border crops of jowar/makka/cowpea to encourage conservation of predators and parasitoids

E. TRAPS

Pheromone traps (5/Ha); Bird perches (10/Ha); Light traps





Supreme Court bans endosulfan till ICMR submits report

57

The Supreme Court has banned the manufacture, sale, use and export of endosulfan throughout the country, citing its harmful health effects and has asked the Indian Council of Medical Research (ICMR) and the agriculture commissioner to submit a report. A joint committee formed under these two bodies is expected to submit the report in eight weeks. The apex court on May 13, 2011 also asked the Government of India to come up with safer and cheaper alternatives of the pesticide and decide on how existing stocks have to be destroyed. The court gave its decision on a public interest litigation filed by the Democratic Youth Federation of India (DYFI- Kerala) seeking a ban on the toxic pesticide.

The three-judge bench, comprising Chief Justice S. H. Kapadia, Justice Swatanter Kumar and Justice KSP Radhakrishnan will consider lifting the ban only if the report clears the use of the pesticide. It did not heed the government plea that the ban order be postponed till the committee submitted its report.

Chief Justice Kapadia said, "I cannot allow the

use of endosulfan for even seven weeks. Effect on one child's health is also crucial and I can't have that on my head."

The DYFI petition had quoted three reports indicting endosulfan: the 2002 National Institute of Occupational Health (NIOH) report on the health impact of endosulfan on Padre village; The Government of Kerala's year 2003 report on the health hazards of spraying endosulfan; the Government Medical College of Calicut report.

Gopal Subramaniam, the Solicitor General representing the central government, conceded that the government was not adequately informed about the alternatives to endosulfan but was concerned about the lack of pesticide for the impending kharif crop of paddy and cotton in particular. The bench countered that if Kerala's kharif crops could do without endosulfan so could the rest of the country's.

The court also explained that even though no farmer had complained about the use of endosulfan that has been used in the country for more than four decades, it had the right to take this up under the precautionary principle. ●

**CONTRO
VERSY**



The Indian Farmer and Endosulfan

M. J. Khan

If endosulfan is evil, why does the Indian farmer use it? Surely, there is a farmer's point of view. The first reports linking endosulfan to health problems and birth defects in Kasaragod Kerala were published in February 2001 in *Down To Earth*, a publication of the Centre for Science and Environment, a Delhi-based environmental NGO. Nothing was conclusively proven though. The Supreme Court has now banned the use of the pesticide till an expert committee submits its report in around eight weeks.

One is concerned here with the farmer's perspective. India is the second largest producer of fruits and vegetables, which depends on the pollinator honey bees to carry out cross-pollination and fertilise this crop. endosulfan is the only available pesticide known to be safe for honeybees and other beneficial insects. It is the only tool to assist a farmer while making a transition organic farming as it helps increase the population of beneficial insects, which control the crop damaging pests.

No safety issues

In India, the farmers have been safely using endosulfan for over 40 years. It is used extensively in Maharashtra, Madhya Pradesh, Andhra Pradesh, Orissa, West Bengal, Uttar Pradesh and Punjab. No issues related to health and environment have been raised there.

Analysis of blood samples of Indian farmers and workers, including those from Kerala, who have used endosulfan extensively for periods ranging from 20 to 30 years and have been exposed to endosulfan, have confirmed that there are no health problems associated with the endosulfan and that there are no residues in human body on account of exposure.

European countries have been using endosulfan for over 55 years. Having invented, manufactured, traded and used endosulfan for five decades, Europe has never reported any health or environmental casualties. Europe withdrew the registration for use of endosulfan in 2005. However, in 2008, when Italian farmers witnessed an infestation of weevils in their Hazel nut crop, they demanded the use of endosulfan and the Italian government prescribed the use of endosulfan on the hazelnut crop for over 120 days. Would they have allowed the use of endosulfan and endangered the health of their citizens if it was indeed causing health problems? Also, there have been no reports of

health problems arising out of use of endosulfan in the US, Australia, Argentina, Brazil or Mexico, where the product has been used extensively for over 40 to 50 years.

No cost effective option

So far there have been no cost-effective alternatives to endosulfan. Alternatives like neonicotinoids, used to replace endosulfan in countries like Germany, France, the U.K. and the US, have resulted in mass bee kills and colony collapse disorders. There is already public and regulatory pressure to stop the use of neonicotinoids and other pesticides that are harmful to honeybees and for regulatory mechanisms that will only allow the use of "bee-friendly" products. In India, farmers depend on nature and honeybees for pollinating their crops and honeybees are available to farmers in India as a free resource unlike farmers in the west who have to buy "bee-boxes" to pollinate their crops.

Business, not ecology driven

The top three manufacturers of crop protection, who account for more than 50 per cent of this market are European. The top six companies account for 75 per cent of this market and the top 10 companies account for over 85 per cent of this market. It is only natural that all policies and regulations relating to use of crop protection chemicals will be driven by the small group of multinationals. Endosulfan is the only generic molecule where the original inventor of the molecule no longer has a commercial interest.

The pesticide was discontinued in Europe

Endosulfan history

Endosulfan was invented in Germany and manufactured, used and traded for upwards of five decades. The European manufacturer decided to phase out this generic molecule in 2001 for purely commercial reasons. Based on health concerns including those arising out of reports and studies undertaken in Kasaragod, Kerala, there was a review of this molecule in Europe from 2002 to 2005. In 2005, the European Union decided to withdraw the use of all products containing endosulfan and asked for all uses to be terminated by mid-2007. During 2007, the European manufacturer decided to stop manufacturing endosulfan. However, it decided to continue to sell the product globally, including in India. In the same year, the European Union submitted a proposal to consider listing of endosulfan as a persistent organic pollutant (POP) at the Stockholm Convention. The European manufacturer decided to stop selling endosulfan in 2010. In the same year, the POPRC made a recommendation to consider endosulfan as a POP.



because of commercial reasons and came into limelight in India after health concerns surfaced from Kerala. Reports and studies undertaken in Kasaragod, Kerala, led to a review of this molecule in Europe from 2002 to 2005. However, there appear to be too many coincidences in endosulfan's journey in Europe and every time the European manufacturer took a commercial decision, the European regulator took a regulatory decision. The issue at hand is around what happens if endosulfan is banned in India.

A ban on endosulfan will result in a replacement

by alternatives that are 10 times more expensive and will be damaging to the farm ecosystem as most of these are known to be harmful to pollinators such as honeybees. If a decision is taken by the Conference of Parties (COP) of the Stockholm Convention in April 2011 to accept the POPRC (Persistent Organic Pollutant Review Committee) recommendation to list endosulfan as a POP, it would be against interests of Indian farmers and farmers in the developing world. It is unfortunate that there are no observers at the Stockholm Convention representing interests of farmers and the farming community, while there are a number of observers from environmental NGOs against use of pesticides.

Ban decisions not science based

Dr S. K. Handa, an expert on pesticide residues and a former WHO consultant to the Ministry of Health, has also criticised the manner in which scientists at National Institute of Occupational Health (NIOH) hastily conducted a study that blamed endosulfan for causing health problems in Kasaragod, Kerala. The NIOH study titled "The Final Report of the investigation of unusual illness allegedly produced by endosulfan exposure in Padre Village of Kasaragod district (N. Kerala)" has been the root cause for the demand for a ban on the pesticide endosulfan. It was followed by another study made by the NIOH titled, "Effect of endosulfan on Male Reproductive Development." Both of these studies have become available on internet for public access. During thorough readings of these reports, scientists and experts have noted that the studies have several serious scientific errors relating to the residue analysis of endosulfan.

The Right to Information Act (RTI) helped expose and confirm the fundamental flaws in a scientific study on pesticide residue analysis by NIOH. In view of its national importance, several scientific committees established by the Government of India had reviewed the NIOH report. These committees concluded that there is no link established in the use of endosulfan and the health problems reported in Padre Village in Kerala. Raw data obtained through the RTI have now confirmed the findings of these committees. The NIOH studies have also been peer reviewed by scientists at California Environmental Protection Agency who have concluded that the conclusions made by Dr Saiyed et al and the studies undertaken by the NIOH are not scientifically tenable.



Endosulfan market

Endosulfan is the third largest selling insecticide worldwide. Its global use is in excess of 40 million litres valued at over \$300 million. Thanks to the product going generic, Indian companies account for more than 70 per cent of this market, which has come at the cost of the European manufacturers. The replacement value of endosulfan by patented alternative is estimated to be in excess of \$1 billion. As a result, endosulfan is in the eye of the storm in the battle of "patented" versus "generic" pesticides.

The global market for crop protection chemicals is worth \$40 billion. The top three companies alone account for over 50 per cent of this market. All three are European. The top six companies account for 75 per cent of this market and the top 10 companies account for more than 85 per cent of this market.

India's position

The Government of India has opposed the E.U. proposal for listing endosulfan as a POP at the Stockholm Convention. India's decision has been based on the fact that there are significant scientific data gaps in the proposal to recommend endosulfan ban. In addition, the rules and procedures of the Stockholm Convention have been violated by the Persistent Organic Pollutant Review Committee (POPRC), while making recommendation on endosulfan. All recommendations have been made without consensus and in spite of opposition from such countries as China, Argentina and Ghana to decision making by voting.

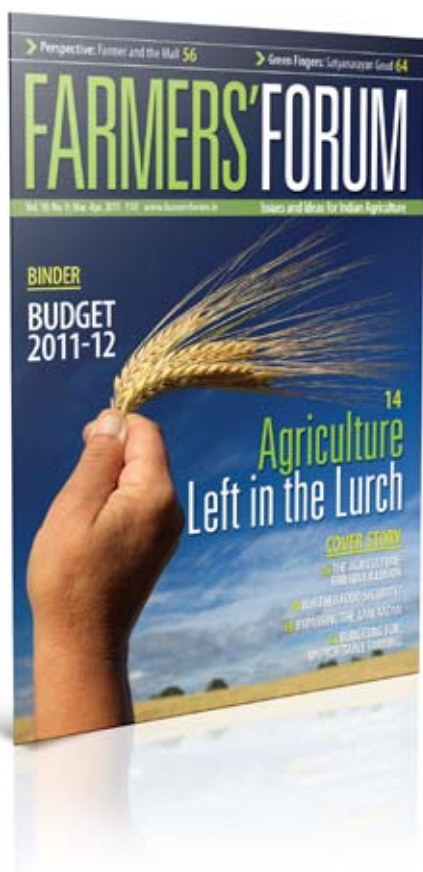
India has also been under pressure from environmental groups to consider a national ban. This is something that the government has resisted because several expert committees have clearly concluding that there is no link between endosulfan and the reported health problems in Kerala.

Aerial spraying of endosulfan was undertaken by the Karnataka Cashew Development Board in villages of Dakshina Kannada to control T-mosquito pest in the crop. The state banned it after getting reports of its ill-effects on health of the locals. The endosulfan Manufacturers and Formulators Welfare Association



have, however, moved the Karnataka High Court, challenging the ban. The Karnataka government's action comes despite the expert group, appointed by it in 2004 to investigate reports of health problems in Belthangady taluka, concluding that there was no link between use of endosulfan and reported health problems in Belthangady. This report was tabled in the Karnataka Legislative Assembly way back in April 2004. ●

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Apthamu's Ethiopia: Ethos and Ethics

Ajay Vir Jakhar

Here I am, sitting in the shade of a tree on my farm in village Punjkosi, Punjab. Our crop is being harvested by an entrepreneur farmer, who owns and operates a combine harvester. Amidst all this activity, my mind travels to young Apthamu in Ethiopia, from where I have just returned. The contrasts between my world and Apthamu's are striking; the similarities are even more amazing.

Farmers have all but lost hope in India amidst grave uncertainties about what the future has in store for them. On the one hand, water is getting scarce and, on the other, there is no new breakthrough for increasing agricultural productivity. The farmer's

increasing pessimism is prompted by growing losses; worse, he is increasing chemical inputs to improve productivity to attain a small net profit. This is destroying India's soil health to the point of disastrous consequences. In Ethiopia, things are sunnier though there are similarities between farms and farmers in both countries. Farms in both lands are predominately small in size even though the population density in the two regions is poles apart.

Even climate

This is Debre Birhan and I am taking time out to explore the countryside; visiting farms, greenhouses, villages and farmers, as my mind opens up to the paradise of possibilities. There is no air-conditioning, nor even fans in homes and offices and not for the want of electricity. The temperature under shade is

bearable, and even pleasant most part of the year. Otherwise, it is cold. Nobody seems to be smoking cigarettes! This country is constantly surprising me.

Ethiopia, in North-East Africa, is located on altitudes ranging from 200 metres above sea level to 3,000 metres and between latitudes 40°N and 150°N. A country half the size of India, it has a population of just 80 million, just about four times the population of Kolkata. Ethiopia also has 24.6 million people living below the poverty line of one dollar per day, according to the 2010 Millennium Development Goals (MDGs) report. They make for 30 per cent of the population. The similarities keep adding up.

Opportunities abound

Despite such worrisome statistics and the fact that it has troubled Somalia as a neighbour, Ethiopia is a relatively safe country with a very low rate of crime. Indians there tell me that one can walk free of fear even in the middle of the night on the streets of the capital or on the farm. Yet I find guards with AK47s at most private projects. The Prime Minister, Meles

2.65 = 1 Birr) per quintal. The cost of a kilogram of onion seed is 50 Birr. The onion sells at the roadside for Rs 5.50 per kg. These traders are basically aggregators, picking the produce from the roadside from small farmers. Over the season, the farmer makes five quintal of onion from his land or between Birr 900 and 1,000. In spite of far better market accessibility in the onion-growing areas of India, the Indian farmer gets less for his onions. GM crops are not yet allowed in Ethiopia because, being a large country with a small population, self-sufficient people are less likely to adopt new farm technologies, especially under the influence of European aid. This is where India is different.

Rural life

Apthamu's brothers present a perfect picture: tall, strapping boys; each going to school. They study in classes VI, VII and IX. The second brother is 19 years old and all brothers work on the farm. The quality of the education being received by these children would seem to be below par though. The

Ethiopia has 24.6 million people living below the poverty line of a dollar a day, according to the 2010 Millennium Development Goals (MDGs) report

Zenawi, heads a single-party democracy. Corruption, as we know it, is not apparent anywhere. This is not the Africa that one is familiar with. It would seem to be the land of opportunities; where dreams can be realised.

Meeting Apthamu

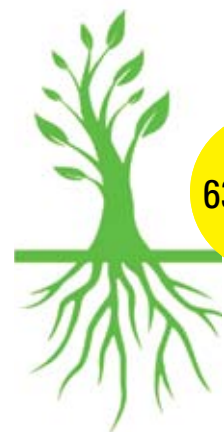
Our way from Addis Abba to Welkite – in the company of Pandu Rajan, a soft-spoken farmer and agro-scientist of repute, who has worked in the African continent for over a decade and speaks the local language – is an experience by itself. We stop by for a chat with a young farmer, Apthamu Ragasse. He is 21 and has three brothers and two sisters. Indeed, the entire country appears to be young for one encounters not too many elderly. Possibly Ethiopia is no country for old men. Apthamu owns a hectare of land and grows onion, wheat, teff or maize at different times. Besides, he owns five cows for milk and also to work on the field.

Apthamu has harvested his onion crop and is waiting to sell it by the road. A trader arrives on a pick-up truck and buys the onions for 200 Birr (Rs

school fee is 13 Birr per year and the boys have to buy their own books. There are no free lunches in this country; nor subsidised fertilisers. Urea sells for Rs 1,050 per quintal. Apthamu buys his seed from the local shop and does not know very much about them. There is plenty of water in this region under the Awash river water system. Not every other place is so fortunate though. What is subsidised occasionally is basic medical advice and normal medicine may come free of cost.

The family lives in a wooden hut; the 'Gojjambeth', which is sporting a tin roof these days in large numbers. It is as if housing in the whole country is being transformed from thatched to tin roof in a decade. Every structure is made of eucalyptus wood. The walls are made of vertical thin wooden bark, nailed together with more horizontal wood and then plastered with a coat of cow dung. The floor is elevated. The irony is that eucalyptus was introduced from Australia a few hundred years ago and 80 per cent of the trees that I see on my four days of travel in the countryside is eucalyptus.

I am told that the capital shifted a few times because



of lack of firewood as deforestation had left barren the hills all around. The commercial eucalyptus plantations helped Addis Ababa settle down. Once again the Indian connect strikes me: thousands of miles away, today I am contemplating cloned eucalyptus for our farm, as agriculture becomes less viable and agro forestry more promising; as wood becomes increasingly expensive in India. Tough times require tough decisions. Apathamu only uses animal drawn wooden implements. Tractors are rare and are only owned by larger foreign firms, Chinese infrastructure companies or a few with government agencies. Local public transport is basically a two-iron wheel buggy with a single row of seating in between the wheels, called 'gari'. It is a much smaller but more versatile version of the tonga in India.

The farmer rarely finds work beyond his own field. The average price of agricultural labour is between Rs 25 and Rs 40 per day, though farmer efficiency is much below the Indian agriculture farm labourer's. Hopefully, as the farm labourers improve their productivity, the demand for their service will increase; so will emoluments.

Farming ways

The Ethiopian farmer, as the rest of the country, is self-respecting, proud and honest. The Italians, who were settled here for some time, established Addis Ababa but the Ethiopians have never been under foreign occupation. It was essentially isolated and left alone for 2,000 years. Christianity survives here

The average price of agricultural labour is between Rs 25 and Rs 40 per day. Farmer efficiency is much below the Indian agriculture farm labourer's

as the oldest faith with 50 per cent of the population belonging to the Christian faith. They fast for 55 days to observe Lent, prior to Easter and then celebrate Good Friday. They eat no animal product not even milk or milk products, during Lent.

They are awakening to the concept of smart commerce though. I see a herd of camel on the road and take a photograph. Promptly, the herdsman comes over and asks for money. I am unhappy to pay but happy to chat. Where is the camel going? To a slaughterhouse to provide the meat for the Easter celebrations. The fasting population will feed on meat over the weekend to make up for the lost time, it appears.



Global interest

On the other side of the local small farmers are people mostly from such countries as the Netherlands, Indians from Kenya and Uganda; Indians from India or, the latest entrants, rich Arabs. There are also country investment funds from UAE! Saudi Arabia, I am told, has discouraged growing wheat or cereals to preserve its sparse fresh water for basic crops. It is now buying land in Africa to meet its own cereal and animal fodder requirements. The Indian option is transferring water for miles away from source without any control on use of water in the command areas. The Narmada waters in Gujarat are being misused to grow rice in what is the most





telling example of bad governance. India's Prime Minister Dr Manmohan Singh will visit Ethiopia this month! Certainly, there would be lessons for the economist Prime Minister to learn.

Green houses dot the landscape, vegetables and flowers are exported to the middle east or Europe and sometimes to Japan. There are plane loads going out daily. Roses are the most exported flowers. One can grow 4,000 roses per day from a hectare of greenhouse. Each rose sells for 20 cents in Amsterdam and this includes the cost of transport that is 50 per cent of the sale value and the five per cent commission charged by agents in Amsterdam, compared to the eight per cent charged in India. Every farm I visited had Indian managers: all MSCs or BSCs in agriculture. They earn double of what they would have earned back home. They are totally in charge of their farms; hard working and happy though most of them leave their families in India.

Land use

Ethiopia was a communist country till the last decade and all land is owned by the government. One cannot buy land but can lease it from the government. First, one must approach the central government investment office in Addis Ababa. For leases under 5,000 hectares one is directed to the regional governments and for those over 5,000 hectares one must visit the agriculture ministry. The government allots land according to the need and crops proposed to be cultivated. The average land rent may vary but generally it is \$10 per year per hectare. At the start, one has to deposit a full year's rent with the government to show the seriousness of intent. For the next three years, one gets a break and no rent is required, being the time given for developing it. The government also allots land free of cost, where there is no infrastructure.

Indian and middle-eastern companies are leasing large tracts of land (over 100,000 hectares each) in



At home with Apthamu... the tallest of the three brothers

Ethiopia, though the common complaint is that they are not farming the land they have contracted to farm. They are either building land banks to sell or to attract funds with the size of their land holdings from the stock exchanges. If such chicanery continues, surely India will lose its preferred treatment that it has been getting from Ethiopia, which provides excellent support to foreign companies. The Ethiopian ambassador to India H.E. Mrs Gennet Zewadi, is doing a wonderful job of trying to facilitate the participation of Indian, companies and entrepreneurs in the development of her country.

Indeed, the Ethiopian economy is waiting to take off for it is the land of opportunities. The economy has expanded by more than five times since the 1990s, when the gross domestic product was only \$6 billion, according to the International Monetary Fund. In 2010, the country's nominal GDP reached \$30.9 billion. The nearby port at Djibouti helps.

Like in India, food inflation is a problem here. The food index headed to 36 per cent above last year's level, according to a World Bank report released in

April. The prices of maize (74 per cent), wheat (69 per cent) and sugar (21 per cent) are among those rising the most. The English newspaper that the hotel gave us reported food inflation at 25 per cent as the lead story.

What was my takeout from this African safari? It was an eye-opener like never before. The present generation of Americans still feels it hard to believe that China has arrived and would soon become the biggest global economy. Those who believe that Africa is back of the beyond may be in for some surprises too. This is the land of great natural resources and enormous potential. It is not burdened with a huge population. What it is catching up on is development, governance and order. In India, we continue to argue and debate, make constant omissions and set up commissions, even as the country is heading towards food insecurity.

The message that rings out in my mind is: a nation that cannot feed itself is never going to a strong nation. That is not independence that our forefathers fought for. ●



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